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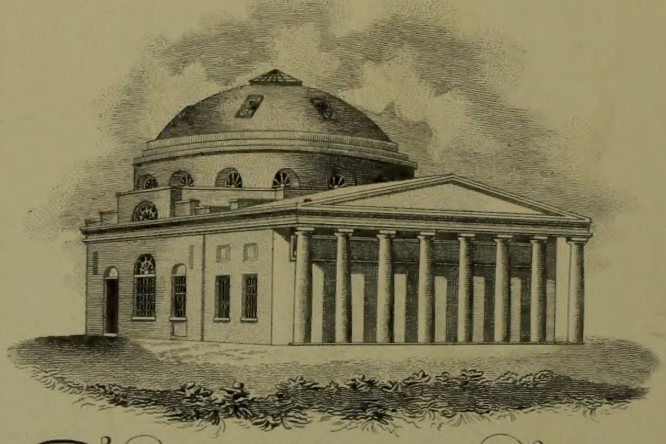

University of Maryland

University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the tables of contents were Richard J. Behles, Historical Librarian/Preservation Officer; María Milagros Pinkas, Metadata Management Librarian; Angela Cochrane and Carol Harling-Henry, Resources Division; Sarah Hovde, Abra Schnur and Megan Wolff, Services Division.

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UNIVERSITY OF MARYLAND

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HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1851-1892; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

Author	Title	Notes
Shoemaker, William A.	Alcohol	
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UNIVERSITY OF MARYLAND

THESES

1885(c)

Norwood, V. L.	Chorea; and its Rational Treatment	25p.
Carter, Paul	Typhoid Fever	24p.
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Perry, J. C.	Alcohol	52p.
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1885

Chorea;
and its
Rational Treatment.

Vernon Le Harwood,
Baltimore,
Md.

Session '84-'5

67

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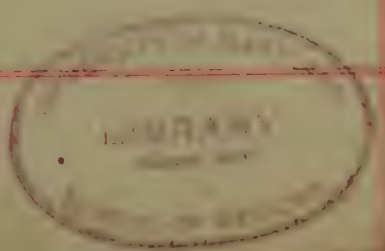
19002



Chorea.

In selecting Chorea as the subject of my thesis, I do so with no pretense to especial originality, but simply because my position as clinical assistant in a city dispensary brought under my observation a series of about twenty cases of this affection.

The observations were necessarily of a disconnected character owing to the difficulty of getting correct histories in-

ther before, during or
after treatment from
this class of patients.
The opportunities were
sufficient however, to em-
phasize one point in
the treatment, which
if understood by the
profession at large is
not dwelt upon in the
latest text-books; this
point will be referred
to later in this writing.

The classification of
chorea as a neurosis
is, in my opinion, a
wise one; for, if a neu-

rosis, as Dumplison tells us, is a "disorder of sensation, motion, or mind without a discoverable lesion of structure", when as no uniform lesion has been discovered up to the present time, the classification is insufficiently established.

The irregular involuntary muscular movements which characterize Chorea are confined entirely to the voluntary

muscles, I can see no
reason to believe, other-
wise, notwithstanding
a prominent neurolo-
gist offers. The ingen-
ious supposition of
the chorea, movements
affecting the musculi
papillares, of the heart.
thus causing the
murmur often heard
in these cases. It is
not probable, that one set
of involuntary muscles
should be affected to the
exclusion of all others.
Why not the intestines?

If such was the case we would have notable intestinal disturbance most probably diarrhoea, whereas if any such trouble is complained of, it is generally constipation. The supposition is a pretty theory but lacks practical plausibility.

The theories offered as explaining the mitral murmur, said to be present in these cases, are as various as the

recognized authorities;
for my own observation, I have found
a murmur in a small proportion of
cases, and in these
it either existed previously or was probably due to existing
anaemia, which plays
such a large part in the
causation of chorea;
My failure to discover
heart murmurs may
have been due to a
lack of auscultatory
experience and aural

acuteness, which I hope future practice my remedy; he thes as it may, considering the relation of anaemia as causation will no doubt account for a larger number of murmurs than any theory that may be advanced.

Chorea affects children, most frequently between the ages of eight and fourteen years, such was the range in the cases under

my observation, I have never seen it in an infant or a fully developed adult; though two cases in persons aged about twenty years came under my notice. That it occurs in infants and adults, is vouched for by numerous clinical observers, but I am compelled to think in rare instances, considering the prevalence of the affection.

Girls are more lia-

due to the affection
than boys; that the
proportion stated by
Dr. J. Lewis Smith of one
boy to two-and-a-fraction
tion of girls was less-
ened in the cases
seen by me.

Of the various
causes, I inclined
to the opinion of
Dr. Smith. Some out
by my dispensary
experience, that an-
aemia is a most
common one. Of the
neuropathic state, said

to exist, precedes the affection, no more efficient disturbing cause would be needed than anaemia to originate the choreic manifestations.

Prominent observers have directed attention to rheumatism or the rheumatic diathesis as sustaining an important relation to chorea as an element in its causation. I regret my neglect

ine not inquiring into this point in the history of my dispensary cases, but in the hurry of dispensary hour I am apt to neglect many important points.

In numerous cases the parents of children date the origin of the trouble from a fright of course in these cases the neuropathic, state exists & needing but a nervous disturbance to set it

into activity. The same proposition is true, doubtless, of intestinal worms; the neuropathic state existing and the reflected irritation.

The foregoing are undoubtedly most frequently the traceable causes of chorea; the theories of investigators may be accepted for what they are, and the practical fact still remains, the cause in a large

proportion of cases will be traced to one or other or more than one of the foregoing.

In regard to the anatomic character of chorea it would be folly for me, an inexperienced medical student, to offer an opinion; I am satisfied under the present circumstances to accept such as are laid down in the current text-books. The opportunity of a post-mor-

tem examination did not offer, should such have been the case, the capability of appreciating lesions should have been wanting.

Most frequently the onset of Chorea is indicated by a disposition to restlessness on the part of the child, or perhaps a twitching of the mouth, eyelid, foot or finger; the history of general move-
ments at the onset was

ture, in but one case, if my memory serves me correctly, of the cases I saw. The observations of clinicians in regard to the predominance of left hemi-chorea over that of the right side in a majority of cases, was borne out in my cases. In a majority of cases the movements were involuntary to be general, those of left side predominating. Under excitement

the violence of the movements increased, as attested by parents, when the children were under examination by the physician-in-charge. In all cases observed the movements ceased during sleep; but I have been told by a prominent physician of two cases in which the chorea assumed the form of mania, of pugilistic character in one, and in the other

of a raving delirium,
in which movements
persisted. A fair pro-
portion of cases pre-
sented difficulty in
deglutition and phonation;
frequently in these
cases fluids regurg-
itated through the
nostrils upon an at-
tempt to swallow; the
speech being of a thick
uncertain character.
When the facial muscles
were affected the grimaces
and constantly changing
expression were silly

in the extreme. My
attention was called
to the fact, that in
these cases, affected
for a long time, there
was a permanent
change in the facial
expression, far from
agreeable to friends
of patients, suggestive
of mental weakness.

The appetite and digest-
ive functions vary with
different cases, some
complained of a lack
of appetite, others of ex-
cessive, and these in which

appetite is not lost, yield most promptly to treatment according to my observations.

I am unable to state the average duration of Chorea from observation. I believe a large majority of cases tend to self-limitation. There was no case seen which did not finally recover.

This trouble once developed in a child tends to recur, as examples were numerous of third and less frequent of fourth

attacks in as many successive Springs. The trouble without doubt prevails almost entirely during Spring and early Summer; cases began to apply at the dispensary for treatment in April and very rarely after June.

The diagnosis of Chorea was evident in all cases seen by me; but I have been assured by practitioners that some cases occur in practice of exceeding

difficulty in early stages of the affection.

Varying and differing treatments have been recommended in theory, their supposed success, no doubt may be attributed to its self-limited nature. Whatever may be the effect of drugs, there is one point in the regimental treatment of highest importance, as I have seen exemplified in numerous instances, the following of which

void abridge, even the slightest case), anticipating self-limitation; that point is Rest absolute and complete; not a restraining rest under which the child would good restive, but made agreeable by unexciting amusements. The nearer to complete rest the better. This point is rational. A child whose muscles are constantly in action, as is the case in chorea,

does not need anesthesia, the extirpation of the uterus or a down the vagina operation, as so many medical attendants are ready to advise based upon a supposed similar teaching in the text-books, but the rational indication is rest. Rest, with good plain and generous diet are undoubtedly most important points. With these, combine the systematic practice of massage

and I have a rational treatment & produces of most satisfying results.

The use of Arsenic, I believe is much exaggerated, I have seen as prompt results from Carbonate of Ammonia coupled with the above most important measures. Valerianate of Zinnia seems a valuable adjuvant in some cases, & perhaps of malarial origin. Iron and anthelmintics are

of course of utmost importance in many and proper cases, in fact but few cases present in which Iron is not a very valuable adjuvant.

Whatever may be said of drugs, Rest has the decided advantage of doing no harm and the good results I have seen will cause me to make use of this measure in future practice should the opportunity offer.

Typhoid Fever

"The name typhoid signifies typhus like". Typhus fever resembles typhoid to a certain extent; but there are distinctive diagnostic points, between the two diseases. Typhoid is quite common with us; but typhus is rare.

The name typhoid was introduced by French & German writers call this disease abdominal typhoid; or ileo typhus.

Prof. George B Wood has given the name of enteric fever. Both

names refer to the intestinal lesion as, being the cause, instead of the result, of the fever. There are other names which have been proposed; but all have some objection.

Anatomical Lesions.

The lesions of typhoid fever are seated in the Peyer's patches, and solitary follicles of the intestines. There are important changes in other organs of the body, but the most of these changes are found in other diseases. The intestines under go four pathological changes. The first is the

stage of congestion, and inflamation of the mucous membrane. The second stage infiltration of the lymphatic structures. The third consisting of the retrograde change and ulceration. The fourth, and last stage, is the stage of repair. In the first week there is is congestion, and inflamation, with swelling of a few of the solitary follicles; and the agminated glands. In the second week the congestion diminishes, while the swelling and infiltration of the

Some times the Peyer's patches look different, in different cases. The swelling of the Peyer's patches is diffused be caused, by an increase in the cells of the gland. Some think the new cells are white blood corpuscles. The inflammation may result in resolution, or in ulceration. If it terminates in resolution, the swelling of the follicles diminishes. Some of the cells in the gland undergo fatty degeneration and are absorbed. Some

follicles and Peyers patches increase. At this period death in the follicles and patches takes place. The sloughing that takes place at this time, causes the ulcers of typhoid fever.

By the end of the third week ulceration has ceased. In favorable cases at the end of this period recovery begins. The ulceration is most advanced, & in that part of the intestine near the ileo-caecal valve. Ulceration of the glands is more, but does not

times some of the follicles ulcerate; and some undergo this fatty degeneration.

The most frequent ulceration is for these follicles to slough, and, by throwing off the slough, produce the typhoid ulcer. The slough may occupy a whole Peyer's patch; or only a portion of it. It is generally colored by the bile. You can not tell anything by the severity of the disease. The lesions of the intestines may be slight, in a severe attack of the disease, and again

they may be grave in a mild case. The ulcers of the Peyer's patches, and those of the follicles, differ in certain features. The ulcers of the solitary follicles are round, while those of of the Peyer's patches are oval in shape, corresponding to the shape of the patch. The long axis of the ulcer being parallel to the intestine. The bottom of the ulcer is smooth. It may reach to the muscular coat, or its floor may consist of serous membrane.

The last step is the cicatrization of the ulcers. The resulting cicatrix, being more or less whitish; are frequently pigmented, slightly depressed and covered by epithelium.

About one per cent of the typhoid fever cases have a perforation of the intestines. Perforation occurring in one or two patches at the same time; and generally between the third and fifth week.

When we have a perforation of the intestine, we may have the signs of peritonitis. Profuse hemorrhage may occur

from the primary slaughting; or from the secondary ulceration.

The mesenteric glands are all ways more, or less, enlarged. The spleen is enlarged, darker in color, & softer in consistency. We very often have changes in the lungs; and ulcerations in the larynx. The liver is swollen, softer, and more pale, than usual. The kidneys may be more or less implicated. The blood has less fibrin; and also has an alkline reaction to a greater extent than usual. This disease

like a great many others, is supposed to be, caused by organisms. Typhoid fever has a great many complications. Typhoid fever is a disease, from which patients convalesce, very slowly.

Clinical History.

It is gradually developed, coming on so slowly that a patient can't always tell you when he first, be gan to feel badly. The first premonitory symptoms are, thirst more or less, marked head ache, the patient referring the pain to the frontal region.

loss of appetite, and some-
times nausea. Epistaxis,
and pain in the loins, and
limbs. Soreness of the bowels
and lassitude. The patient is
more, or less, flighty, and some-
times is difficult to manage;
but as a rule, he will lie
down when told to do so.
The ~~[illegible]~~ incoherent talking
is generally about his daily
pursuits. The patient's mind
is weak; he is not able to
concentrate his mind, on any
one, train of thought. Some
patients bothered a great deal
by what is called "vertigo."

In the case of typhoid fever, the patient suffers from the want of sleep. He is always half asleep, & half awake, not getting any true sleep. The patient as a rule; loses his appetite, although some, have a good appetite through the entire disease. Thirst is a prominent symptom. We have certain morbid conditions of the tongue. The different coatings dont amount to much. A weak and tremulous, are usually denote grave symptoms. When the tongue is thrust out with difficulty; and slowly taken

Crack into the mouth, it shows the false way in which the mind acts. We frequently have have a black deposit on the teeth, called sordes, and we also have hemorrhage from the gums. Diarrhoea is the rule in this disease. The dejections have a color, The bowels are evacuated in the bed, sometimes from indifference, or paralysis of the sphincter ani. When hemorrhage of the bowels occurs it is an important affair. The hemorrhage may be slight, or it may be profuse. The loss of blood, may be the immediate

cause of death; but Statistics
show that a great many cases
of hemorrhage get well. Hemorrhage
occurs late in the disease; and
X is from the ulcers of the
intestines, in most cases.
We have other symptoms in
connection with the abdomen;
tympanites, tenderness, or pain
on pressure; and gurgling.
The tenderness on pressure,
in the illiac fossa is hardly
even, absent. The eruption of
typhoid fever is quite charac-
teristic. It consists of isolated
rose colored papules, generally
limited to the trunk. They

are slightly raised. If the are pressed, the color will leave them for little time. The eruption is found over the chest, and abdomen. The eruption appears on about the seventh day. Jerking in spiration, and frequent sighing, are bad symptoms. There is a gradual rise of temperature, every day for the first week. This gradual rise of temperature for the first week, is diagnostic of typhoid fever. There is a regular rise, & fall, in the temperature each day; low in the morning, & high, in the evening.

If the temperature falls to 106, or 108, it is an almost sure sign of death. If the patient is seemingly doing well, and there is a sudden, rise in temperature, it is unfavorable sign. Hemorrhage from the bowel may occur at this time.

In a great many patients there is retention of urine, & the bladder may become greatly distended. The patient should be watched, and if this retention does occur, the practitioner draw off the urine, with the catheter. On the other hand we may have incontinence, ~~[illegible]~~ from

relaxation of the sphincter of the bladder, or from some differ-ence. Relapses are rare in this disease. The fever may return a week, or two, after convalescence; and all of the characteristic symptoms return. The second attack is as a rule more severe; but shorter than the first; and is rarely fatal. Typhoid fever is an endemic disease. It seems to occur more often in the fall of the year, than any other period. Young adults, seem more liable

to contract the disease than either, infants, or, old people. There are some diseases that seem to protect the system, from this disease. Typhoid fever is communicable; but not as most diseases. The only source which seems at all dangerous as to catching the disease, is the stools, from the patient. The diagnosis of Typhoid fever is made by look at the clinical history of the case. The gradual level, augment of the fever, without any remissions, the abdominal

Symptoms, tenderness in the right iliac region, tympanites, and diarrhoea. We also have the characteristic eruption, and epistaxis. The age of the patient, the season of the year, are also to be taken into account. The steady rise in temperature, is also a very important diagnostic point. In your prognosis, you should always be very careful. What may seem to us a very mild case, may have a perforation, and death occur in a few hours; and again a very

Severe cases may terminate in a coma. In treating typhoid fever we treat it very much the same as we do other fevers. [illegible] the body is kept down. The high temperature is recommended by a good many, while others prefer the wet pack, or sheet. Of drugs quinine would be highest, given in large doses, of, 20, to 30, grains before the evening rise of temperature. We have other drugs, but they are not so good. Salicylic acid, digitalis, veratrum viride and others.

If there is much delirium, use opium in small doses. There are other drugs used, but opium is the best. The treatment of typhoid fever is greatly shortened by the use of opium. If hemorrhage occurs we must use opium, with hemostatic remedies and astringents. The acetate of lead is one of the best we can get.

Coma is to be treated by sinapisms, or blisters to the back of the neck; and, if caused by uraemia, by saline hydragogues, if the

alcohol are given, especially, & have a first class combination. After convalescence has begun, the patient should be watched, as to his diet.

Food plain wholesome — food is what he wants, & not too much of this.

Lastly we should use all the means in our power to prevent the spread of the disease. The dejections should be disinfected, by ~~the~~ adding a solution of the sulphate of iron, & carbolic acid, ~~and~~ and then burned; so as to prevent their infecting other things.

health as drinking water, or in the atmosphere.

Isaac Carter.

Feb 4 1886

Gestation and Labor.

A brief account of gestation and labor, & the duty of a physician attending the same. Entering upon a profession which is for the relief of suffering humanity, and upon one which by diligent study will rank us among the renowned men of the world and crown our efforts with success, the young physician should take advantage of every opportunity offered, which he can afford and strive to obtain all in his power to advance that profession.

The responsibility of a physician is only felt after he is left alone and is compelled to rely on his own

knowledge for assistance; therefore how necessary is it for him to be prepared and in no one branch of medical science is it more necessary (if he be a general practitioner) than in that of Obstetrics for in it the life of the noblest creature God has given us (is in great danger) that of a wife and Mother. Not only that but by ignorance the innocent & helpless little infant may be ushered into Eternity without ever seeing the light of this world.

Therefore I implore every student of medicine to so prepare himself on this branch that when called

on to conduct a labor he may
do it skillfully and satisfactorily
and so win the confidence &
gratitude of those among whom
he may practice and also the
blessing of God which I believe
every practitioner will seem to bring
to a higher honor for self as
he should and not relying on
themselves alone as many do.
This danger of course attends every
woman entering the matrimonial
state and as is so ordained
by a higher power. Then how
important it is for her before
she enters upon this to learn
that no obstacle exist to such union

which will unfit her for a wife or mother. Verily believe if this were more carefully looked into there would be many more happy married lives.
By medicinal and mechanical means the physician is often enabled to facilitate labor, alleviate suffering, & preserve life. therefore how important is it for him to be acquainted with these means.
Necessary for the increase of mankind there must be connection of the two sexes at which time the semen of the male with its spermatozoa must come in contact with

the ovum or egg of the female which after rupture of the Graafian follicle the vitellus surrounded by its vitellum membrane is conveyed along the fallopian tube to the uterus (if it does not fall into the abdominal cavity as is some time the case) here it may meet with the spermatozoa & fecundation be accomplished or it may take place any where along the fallopian tube or as some teach it oftener occurs on the surface of the ovary. after fecundation the germinal spot and vesicle disappear. then the segmentation

of the vitellus begins by which it splits into two three fours & so on, there is then secreted within the ovum a clear fluid which presses these segments to the surface where they form a double layer of cell, the blastodermic layers, the ectoderm & endoderm from which the embryo is developed. Then there appears on the out side of the vitellus an elevation surrounded by a depression the area germinativa in this is seen the primitive trace, a covering for this is formed by its sinking and

being covered by the external blastodermic layer which is now called the amnion the remainder being called the chorion. the allantois shoots out from the middle of embryo but from the external layer and dips into the villi of the chorion and it is by this the embryo receives its nourishment.
As development increases the uterus sinks in pelvis but rises again above pubes about 3 months, 4th month 3 fingers above pubes, 5th month one finger below umbilicus, 6th one above,

7 month 3 fingers above, 8th 5 fingers above, & middle of 9th month almost to ensiform cartilage, and during last two weeks returns to its position of 8th month. The signs of conception are 1st menstrual cessation
2nd morning sickness
3rd Abdominal enlargement after 3rd month, 4th State of the mamma, in 1st month the areola dark, about 7th month the dappled ~~areola~~ appearance of the mamma
5th The abdominal striae in ~~multiparous~~ primiparous. All these signs are merely presumptive

the only certain sign being the foetal heart which can usually be heard about 5th month before this time fibroids of the uterus may be mistaken for pregnancy.

How to conduct labor.

The physician when called upon to see a woman in her confinement should ascertain state of bladder & bowels & evacuate both if necessary the first by a flexible catheter. If she be a multiparous woman he should inquire if she ever aborted or if she is subject to post partum

hemorrhage so as to be careful to guard against the same, he should then examine woman to see if she is in labor and if so he should see that every thing is made comfortable for both mother & child. If 1st stage has commenced which is delatation of the os woman need not necessarily lie down but on commencement of second stage she should When perineum is extended she should not bear down but may blow in hands or cry out. Chloroform is

some times then useful to
control voluntary and involuntary
muscles and to relieve pain.
You should never rupture the
bag of waters in the earlier
stages of labor for a diagnosis
Always let nature have her
way and if she does not
accomplish her purpose then
assist her. If soft parts are
hard & will not expand
Chloral is sometimes found
beneficial. If labor is ushered
in with a chill stimulants
are useful. You should stand
by side of woman and keeping
hand on uterus after delivery so

be enabled to cause uterine contraction if necessary by kneading the uterus. the placenta is usually delivered in from 20 to 30 minutes after child but if uterus fails to deliver it you can stand in front of woman and with both hands on fundus of uterus make firm pressure backward and downward so squeezing the placenta from the uterus if this fails introduce hand in uterus with palm to placenta and separate it from uterus as you separate the leaves of a book If much hemorrhage occur you may give ergot after

delivery of child it should never be given in uterine inertia. (here a good dose of Quinine is beneficial) and only in a very few instances is it necessary to give it before expulsion of both child and placenta it produces strong & constant contraction and even if cervix is soft and dilatable it may cause it to contract and so endanger both mother and child first by rupture of uterus and last by asphyxia. To stop hemmorrhage you can also apply cold to uterus as ice or towel wet in ice water &c

In pending convulsions
you should give chloroform
chloral Opium morphia &c
You can give chloral by rectum
and it usually requires large
doses from 30 to 60 gr You should
also effect delivery at once.
Some times the evacuation
of the liquor amnii will
relieve the convulsion.
The after pains are often
relieved by chloral which is
converted into chloroform
in the stomach and so has
very much the same action.
Cutting of the cord
After delivery of child

and respiration is established you should cut the cord about 2 in from umbilicus. first tying it on both placental and umbilical side and in tying you should place your knuckles together so as not to tear umbilicus if string would break.
If respiration is not established you can resort to artificial by Sheltzer. Marshal Halls or Silvester's method.
Child should be applied to breast very soon after delivery as it has a reflex action on the uterus and exerts

an influence in preventing hemorrhage. You should not leave a woman till permanent contraction has taken place and not then if pulse is over 100. After treatment bandage on abdomen, keep in bed at least ten days mild apparent if necessary as castor oil ℥j Dose nutricious but bland diet for a few days watch for any puerpu-ral symptoms. Child should be rubed over with white of egg or vaseline then washed with soap and warm water you should dress the fusus by cutting hole in a small

piece of linen then double and fold from sides so preventing the funis from lying on abdomen & producing any irritation.

Eclampsia = An acute affection of motor functions of nervous system Char by loss of consciousness and sensation with tonic and clonic contraction of muscles The causes are centric and eccentric Brain a centric cause. Eccentric as irritation of peripheral nerves an overload stomach or impacted rectum extended bladder &c

Treat modified according to individual case. Venesection

ni congested face, bounding pulse. Carotids strong and pulsating is advisable at relieve the congestion of spinal cord & prevents congestion of the brain. Chloroform also used when you see twitching of muscles and chloral after to sustain the influence. If all these fail, morphia gr 1/4 to 1/3 will often accomplish the purpose. Irritants should be removed from stomach or bowels. Cold applied to head to relieve congestion & Following these means you will often be enabled to save your patient's life.

Thesis

J. B. Lockridge

W. & M.

1885

Thesis
on
Urinary Pathology

Wilfred J. Rivers
M.D.

1885.

One of the most important
ways and in reality the only
way we have to diagnose trou-
bles of the kidneys and the blad-
der is by means of the urine and
through the passages travelled
by it. Besides having the
sediments and crystals that
are formed in the urine.
chemistry has placed in our
hands the power of pre-
cipitating from the urine
many of the salts of urea, al-
bumen, the phosphates, &c.
The test for Urea, the one
commonly used and of most
importance is that of Nitrate
of silver and a solution
of

by [illegible] that the urine
urea is formed and de-
posited in characteristic
crystals on the sides of the
vessel, and can easily be
seen without the aid of
the microscope. The Physi-
cian is not called upon
very often to determine or
seek for Urea, and then a
quantitative analysis is ne-
cessary, for Urea is a na-
tural constituent of the
urine and we have on-
ly to determine when we
have it in excess or when
it is deficient. The latter
especially in Uraemic Convulsions.

which the mixture becomes of a dark blue color; then gently heat this to the boiling point. If sugar is present there will appear as a precipitate the suboxide of copper of a reddish brown color. If albumen is present this reaction will not take place, and we have to precipitate the albumen and separate it before continuing the above test.

The fermentation test is very simple and should always be tried in conjunction with one of the others. It

The test most well and most convenient is that of nitric acid and heat. This test is very reliable but it should always be kept in mind that the urine must be heated first before adding the acid. The albumen is precipitated in the form of a white cloudy mass and easily distinguished from the phosphates by the addition of a little acid which will dissolve the latter but not the former. Sometimes the albumen will not be precipitated if the acid is added before the urine is heated; because the phosphate utilize

the acid before the albumen is precipitated; but upon adding acid in excess we can finally precipitate the albumen.

Another and an important test for albumen is that known as the Picric Acid test. This test is very good under some circumstances but it will give a precipitate similar to albumen if the patient has been taking quinine to any extent. This has often lead to mistakes on the part of the Physician and should always be kept in mind when using this test.

If we place the nitric acid in a test tube first and then add the urine, and on top of this add the Picric acid we will have two layers of albumen formed between the two acids & the urine.
Again if we boil the suspected urine for a while we will have it to become turbid. This turbidness is due to either albumen or to the phosphates contained. This is easily determined by the addition of a little acid - when if it is the phosphates - the solution will immediately become clear.

When we find that a patient has albumen constantly in his urine, the diagnosis of Bright's disease is correct. Sometimes the albumen comes and goes at intervals. Again we have other symptoms that accompany the disease, such as headache, nervousness &c. The disease pulls the system down so much and the patient generally dies, not of the disease, but of some other affection, where acute. These four tests, together with the specific gravity, the color, smell and taste of the urine comprises all the tests

necessary for a general prac-
titioner.

The Specific Gravity of healthy urine ranges from 1012 1030, the average being placed at 1020. The easiest and quickest way of getting the specific gravity is by means of the Urinometer, an instrument made for that purpose. The specific gravity of urine is constantly changing in the same person during the same day; for we find that 3 or 4 hours after a meal the specific gravity is much higher than it is after a person

from his drinking much fluid. We can easily estimate the amount of solid constituents contained in the urine by the specific gravity of it. In Diabetes Mellitus the specific gravity is very high; in Hysteria it is lowest. In Chronic Bright's disease it is also very low being sometimes 1006 or [illegible]. In such a case the prognosis is bad.

The Color of healthy urine is from a pale straw to a brownish yellow color. Whenever we have a high

normal urine we may
expect to find some patho
logical condition. The most
common pigment of the
urine is purpurine, which
abounds in the urine in vary
ing quantities during fever
and some organic disease
of the liver. It is commonly
called "the brick dust urine".
Where the bile is present in
the urine; if we add a drop
or two of nitric acid to such
urine when placed on a
white surface, we can
see the varying colors pro
duced by the reaction;
this being the test for bile.

The Odor of Urine when voided immediately after being passed is of an aromatic, sweetish odor. Food often causes a change in its odor, especially a vegetable diet. Its odor is also abnormal in many diseases.
The taste of normal urine is saltish. This also varies in diseases, being sweet in Diabetes Mellitus, and bitter in Jaundice. This however is of no great importance to the present practitioner.
The Quantity of urine passed in the 24 hours is

of much importance. In Diabetes Mellitus we find a very large discharge, while in other diseases the discharge is unusually small and sometimes even sup-pressed. In considering the quantity, we must always inquire into the habits of the patient. Often a person will naturally drink very little fluid, and consequently less is passed. It is just the same with a person who takes too much water or drink. Or-dinarily an adult, in active life, will pass about 45-50 ℥s of urine in the 24 hours, pro

the kidneys, but upon the changes that are produced in the blood, or the impediment to the circulation and engorgement of the kidneys. This is entirely different with Bright's disease, for here we have the structure of the kidneys altered. In this, as well as in acute the phritis we have many tube casts passed in the urine which settles on standing. The microscopical examination of the urine will be omitted, but is of much importance.

To the Faculty
of the University of
Maryland.

by
Louis H. Morris

March. — 1885.

Traumatic Hemorrhage & its treatment.

Traumatic Hemorrhage or Hemorrhage from wounds Embraces a variety of cases, both those from wounds made by the Surgeon & from other causes, which are of too great variety to be described. Can anything be more terrible or appalling to the sight of a patient or his friends than hemorrhage Especially when the blood gushing forth

Thanks at every moment to put an end to existence. Who is more learned than a skilful surgeon or who by his knowledge & skill in practice can pull almost as it were his fellow man from the jaws of death.

Torus-

Hemorrhage may be either arterial or venous. May arise in external internal or simply an extravasation or effusion of blood into

in the [illegible] tissue.
Causes may be direct
or indirect according
to the manner in
which the violence
is applied.
Cerebral Hemorrhage
is characterized by
the scarlet color of the
blood & the peculiar
manner in which
it issues from the
mouth, it spirts out in
jets so rhythmically
with the contractions
of the left ventricle of
the heart and not

in a steady stream as from a vein, this only holds true when a large artery is cut, for when a small one is cut, it escapes in jets but the same as from a vein but much more forcibly. When bleeding takes place rapidly after a person is wounded it is called primary; when it occurs within twenty four or forty eight hours recurring and when after a

longer time secondary.
Primary hemorrhage is
due to a direct injury
to a vessel; the returning
to the increased force
of the circulation during
reaction & to the displace-
ments of clots that
are sufficient to
control it when the
circulation was feeble
to the contraction of a
vessel during the
dressing of a wound
or to some imperfection
in the mode of
securing it at the time

of operation. The secondary is due to the giving away of a vessel; by ulceration of the ligature by the accidental separation of a ligature; from injury, or from hemorrhagic diathesis. Symptoms of external hemorrhage need no description, it being recognizable by a C. Prose of concealed internal hemorrhage need some attention. They are those of local injury, plus those which

denote hemorrhage generally. In slow and in sudden hemorrhage the symptoms are very different. Some of the more serious accidents ~~often prove~~ often prove instantly fatal from the loss of blood or if Syncope should ensue & death does not occur at once, it may occur subsequently but not less certainly from the same cause. In the countenance

a victim of hemorrhage there is that characteristic clayey & leaden color which the painter represents in battles & assassinations & that tossing of the limbs, which is said by some to be a sure sign of death.

The treatment of hemorrhage is simple but not always practically, it is very easy to apply remedies indicated, but they may fail & the patient may

all bleeding can be done. Bleeding from any vessel however large may be controlled by direct pressure upon the wounded part. When bleeding comes from a wound with which is not known, whether arterial or venous, the first duty of the Surgeon is to clean the wound & remove all clots. This alone is often sufficient to arrest all bleeding. When direct pressure is inapplicable, or not

pressure or pressure
over the main artery
above the wound
should be applied for
operations upon the
extremities this is the
best way to arrest or
prevent the hemorrhage
As a temporary means
of preventing hemorrhage
digital pressure over
the femoral may sometimes
be employed for the lower
extremity & on the
inner side of the
biceps muscle for
the upper extremity.

ment Esmarch's bandage has been much employed for controlling hemorrhage during operations & after the wound with much support. It consists in applying an elastic bandage from the extremity of the limb to a point above the site of operation & then in the application of a rubber band tightly above the upper border of the elastic bandage which can then be

remove. By these means
the parts can be
rendered bloodless &
operation can be performed
with the loss of the
loss of a spoonful
of blood. There is however
one objection,
which is that when
the tumor is removed
there is a far greater
amount of oozing
from the soft parts
than from other methods
The Tourniquet is an
excellent instrument
for the compression of

vessels. The abdominal tourniquet should be credited to Joseph Pancoast of Philadelphia, who devised it for controlling hemorrhage in hip joint operations. In any case the of hemorrhage the wounds should be cleansed before any permanent treatment is applied. Ligature, torsion forms the principle methods of controlling hemorrhage, acupressure is some times used.

For some time past the ligature has been the favorite means for the arrest of hemorrhage, the speedy way in which the bleeding is checked & the feeling of relief, on knowing that for a time at least all bleeding was checked, has influenced the majority of practitioners in its favor, as to induce them to lay aside all untried means as unnecessary.

The process by which nature arrests hemorrhage is utilized by the ligature. Silk or Catgut may be used, force enough being applied to break the inner coat of the vessels without injuring the outer. When the vessel is deep seated it must be ligatured with some of the adjacent tissues, when silk is used, the ends should be left hanging out of the wound.

but when Carbolized
Catgut is used the end
may be cut off & the
wound closed, leaving
the knot in position, the
ligature being absorbed.
When vessels are twisted
& diseased much care
should be used so as
not to cut the vessel into
with the ligature. In a
physiological point of
view there is no method
more perfect for the
control of hemorrhage
than torsion; because,
unlike compression which

ness only one of Nature's
hæmostatic processes
or the ligature, which
is a foreign body, it
utilizes all of Nature's
processes to arrest hæmor-
rhage and place the
vessel in the most
favorable position for
them to take effect. It
must sometimes by means
of torsion a pair of
good forceps is required.
The vessel should be
drawn out from 1 to 2 turns
or rotations of the
forceps should be made,

taking care not to twist off the ends, when vessels are diseased fewer rotations are necessary. The arguments in favor of this method are numerous, while the practical advantages seem to be nonetheless. Notwithstanding the favorable results in Europe at the various large hospitals, it has met with very little favor in this country. Acupressure has been lately brought before

the profession, the principle is very simple viz. the occlusion of a vessel by the temporary pressure of a finger without lacerating the vessel or setting up any inflammatory action for more than a few days & the absence of any foreign body after that time, is sufficient for the coagulation of the blood and not upon the permanent closure of coats of the vessel.

It is but little practiced at the present time & seems to be more adapted for the treatment of neuroses.

Styptics or astringent remedies may be used in some cases where nothing else will suffice. They are often used in uterine, rectal, & also in dental surgery. The air itself is often sufficient to arrest slight bleeding & the oozing from capillaries after operations. Both cold

of a [illegible] [illegible]
should be dealt with
separately, when it can't
be treated at the wound
the main trunk should
be secured. Venous
hemorrhage differs from
arterial in the dark
color of the blood & in
the steadiness in it flow,
except from large veins
it quickly ceases from
collapse of the veins,
if not by pressure; large
vessels should be tied
or twisted. Elevation of
part tends much to the

current of venous bleeding.
Wounds of veins heal
quickly on after
venesection. Phlebitis
is the chief Evil to be
feared from an injury
to a vein & when it
occurs is very fatal. The
Surgical treatment of
Hemorrhage, though
Subsidiary to Medical, is
of much importance.
In treating a case
where there is Simple
arterial loss of blood,
you should not be
too hasty in trying to

overcome it, as it is
a means which nature
makes use of in
arresting hemorrhage,
but also should be
careful that the Syncope
be not fatal; if such
a result be imminent
the patient should
be placed in the
horizontal position
with head low cool
air should be allowed
to blow over him &
water sprinkled on his
face, hemmoniacal
stimulants inhaled &

'brandy given internally
in small quantities.
'In all cases liquid
nourishment should
'be given, stimulant
in moderation. When
there is danger of the
recurrence of the
hemorrhage all
nourishment should
'be given cold. In the
stage of convalescence
tonic mixture are of
great value, opium
is also of much value
but must be given
with caution for milk

a feeble heart in large
doses tends to depress
the system. When there
is a hemorrhagic
diathesis, iron in
full doses is of
great value.
Prognosis of course depends
upon the character of
the case & upon the
amount of blood lost.

Alcohol

by

J. Clifford Perry.

— 1585 —

Alcohol

The opinion that alcoholic drinks afford to the system a stimulus, which, if not necessary for the maintenance of health, is beneficial by promoting in the various organs a healthful exercise of their functions, thus enabling them more effectually to resist the vicissitudes of life with which they are daily brought in contact, is one that for a long time has been prevalent and the correctness of which the public still entertain a firm conviction. To this opinion is due much of the intemperance, which, with its attendant evils, has prevailed to such an alarming extent among our fellow creatures. It even now presents a formidable barrier to all attempts at reform in regard

to the habitual use of these beverages.
That these alcoholic drinks exert a baneful
influence on the body, both mentally and
physically, is evident to all intelligent
minds who give the subject careful thought;
This consideration should be of sufficient
importance to enlist our most strenuous
efforts toward the suppression of this evil,
which, if it is allowed to advance
with the frightful rapidity that has char-
acterized its growth in the last few
centuries, and no attempt is made to
stop the progress of this consuming fire,
will eventually leave our race with
debilitated constitutions, fit subjects
for the prey of all diseases and our
society will no longer be in the zenith

of its glory but will also have felt the demoralizing effect of this the greatest of all evils

So long as the opinion prevails, that in moderate quantities the use of these beverages are salutary and necessary for the maintenance of certain functions, it will be impossible to guard the mass of people from the free indulgence in these fluids — Every means capable of staying the progress of intemperance, with its attendant evils, will be without avail

Alcohol has been known for a long time; in ancient literature we read of Bacchus God of wine. Speaking chemically the term alcohol, originally limited

to one substance viz:, spirits of wine, is now applied to several organic compounds, many of which, in many of their characters exhibit little resemblance to ordinary alcohol.

Preparation.

alcohol is a secondary product generated in certain vegetable fluids containing sugar or starch in presence of albuminous matter, as yeast plant (mycoderma cerevisiae) by process of fermentation. In order for this process to go on properly the liquid should be at a temperature of 60° - 90° Farenheit; if this fluid is reduced to too low a temperature the fermentation is arrested and the yeast cells, which are minute living or-

ganisms, &c. In case of glucose the simple splitting up of molecule which results in the formation of alcohol and the evolution of Carbon Dioxide.

When the solution, in which fermentation is going on, contains grape sugar it is first converted into glucose by the action of water, and then into alcohol and Carbon Dioxide

There are several stages in the preparation of alcohol. First, by distillation of various fluids, we get a very weak spirit, being diluted with a large per cent of water. Second, the distillation is carried much further and we obtain what in commerce is known as ardent spirits — Again pure alcohol is gotten

by distillation of alcohol with one half of its weight of quick lime.

Properties.

Pure alcohol is a colorless, volatile and inflammable liquid - burning with a blue flame; has a pungent taste and an agreeable odor. It is never frozen when pure. Alcohol is miscible with water in all proportions, and has great affinity for the latter. The solvent powers of alcohol is very great; it dissolves a great number of inorganic compounds, also has power of dissolving certain organic substances; as resins, gums, essential oils and some other bodies.

Physiological action

Alcohol in concentrated or dilute form when applied to the skin, evaporation being prevented, produces coldness by its evaporation — Hence it is often used to sponge the body in typhoid fever. But when evaporation is prevented it causes redness of the part, excites a sensation of heat, and produces superficial inflammation. The most important action of alcohol when brought in contact with the animal tissues is corrugation, which is due to the difference of capillary attraction of the tissues for water and alcohol. The tissues absorb a mixture of alcohol and water much less readily and in less amounts than pure water, hence when

a given quantity of alcohol is taken up, a much greater bulk of water is expelled, and the first result is a shrinking of the animal texture. It has been proven that tissues of a certain weight, saturated with water, when allowed to stand in an alcoholic solution loose weight.
This corrugating effect on tissue is favored to a great degree by the power which alcohol has of coagulating any albumen that may exist in the various fluids.
Both of these results, however, will be dependent on the amount and concentration of the alcohol employed; but some such change always takes place when alcohol is brought in contact with the stomach, and in the various soft-

tissues of the body, when it has entered the circulation. Among the most important chemical changes which alcohol produces is the coagulation of albumen; but, although we do not in ordinary alcoholic solutions have it in sufficiently concentrated state to effect this, yet we should anticipate that its presence must affect the chemical nature of albumen in such a way as to retard the peculiar transformation of it into fibrin.

As no considerable change in the physical and chemical nature of animal tissue can take place in accordance with health; and, as the introduction of alcohol in a fluid containing fibrin impairs the solidification of it, which is

its special vital endowment, we know that much issue is made by this power of organization, anything which interfers with the performance of this function must act deleteriously to a healthy organism.

The effects produced by the drinking of large quantities at one time or smaller amounts at short intervals, are known as intoxication. The degree of intoxication varies according to the quantity of fluid absorbed. There are three well marked stages. In the first stage, when sufficient alcohol has been absorbed to produce its effects, we will have the heart stimulated, increasing the force and frequency of the beat. The functions of the various or-

glands are called; digestion and the appetite is increased; the various secretions are augmented, especially those of the skin and kidneys. It seems to act especially as a stimulus to the encephalic centers: the person becomes talkative, his quickness and variety of thought is stimulated, the cheeks are flushed, and the eyes suffused. During slight intoxication, the prevailing traits of the person's character are manifested; hence the saying, "In Vino Veritas".
The irritable become quarrelsome, the melancholy sometimes burst in tears, but more often are merry, and many men in trouble seek temporary solace from their cares in the wine cup.

If he stops at this and does not drink any more, the after effects are that the digestive function and aptite is lossed, the skin is dry, and incapacity for mental work. This will soon pass off by rest, sleep and abstinence for a few days.

The second stage of intoxication is simply a greater degree than the first.

In the second stage of intoxication not only the intestinal but also the sensorial functions are disturbed. He loses voluntary control over his thoughts, hallucinations, vertigo, the muscular movements become unsteady and tremulous, face is generally pale, and the eyes have a vacant stare. Very often in this stage the person vomits and the convulsive stage is cut

short. Generally in this condition the patient passes into a profound slumber, from which he awakes to feel the consequences of his indiscretions. The effects vary according to the previous habits of the individual. Those who are unaccustomed to such excesses usually suffer from a severe and throbbing headache, feverishness, complete anorexia, thirst and intolerance of alcoholic beverages, inability for mental work or bodily activity, and depression of spirits. Only here restoration of normal functions by prolonged rest. The best agent to restore the tonicity of stomach is Capsicum. In those, who have indulged in excesses before, or have nearly the same results, except, instead of having a loathing of

alcohol, he craves a drink; and when he has obtained it he is able to take his food, and resume his usual occupation.
In the third stage, the most profound intoxication, we have almost complete suspension of the sensorial functions.
The state may vary in intensity; may only be a deep ordinary sleep from which he can be aroused, or may be a profound stupor which resembles apoplexy, which, when associated with imperfect respiration, is an indication of danger. The ordinary symptoms which are made manifest in a case of this kind are: The face is generally livid; the eyes are suffused, sometimes glazed; pupils are dilated; the temperature about

the head is increased, and in the extremities very much diminished; the pulse at first fast becomes slower and very feeble, sometimes have strabismus, and convulsive seizures in more advanced states. Resperation becomes very much impeded.

The symtoms indicative of danger are: slow resperation, profound insensibility, feeble circulation, dilitation of pupils and tetanic spasms. Where these do not prove fatal the symtoms are very much diminished, but it is some time before the organs regain their normal activity.

Action of alcohol on the stomach

When alcohol is taken in moderation it acts as a stimulant; the action of the heart is increased, the digestive function is exalted,

and appetite is increased. When one or
two ounces and half of alcohol is taken in
twenty four hours, it is oxidized and acts as
food, supplying nervous, muscular and secre-
tory forces. When larger quantities are intro-
duced, a succession doses have been taken, so
as to keep up the irritation, or the alcohol has
been taken in a high degree of concentration,
all the effects of an irritant are produced:
The mucous membrane is congested and
may have it's standing in inflammation.
In consideration of the readiness with which
alcohol is absorbed, and the intimacy of
its contact with the mucous membrane,
protected as it is, by the mucous in it's in-
tervals; it would appear that this condition
is more often caused by a repetition of doses.

The habitual use with the glands to a pathological section, the most constant change is a thickened state of the mucous membrane; the membrane sometimes being soft and sometimes firm, corrugated and pale. The mucous follicles are elevated and hardened— It seems apparent, that habitual excess might account this transient derangement, which only requires a few days abstinence for its cure, into one of greater severity; such has been proven to be the case; producing a special form of dyspepsia, termed Inflammatory Gastric Dyspepsia, being well known to the medical profession, as common amongst drunkards.

Of this disorder the following are the most important symptoms: Impaired digestion,

sense of heat; tenderness or pain at epigastrium, increased by pressure; sense of discomfort, greater after taking food; tongue red and dry, sometimes brownish red and glossy; bowels costive; urine high colored and scanty; skin is usually dry; temperature is increased in the trunk, diminished in the extremities, except occasionally in the palm of hands and soles of feet, which are often red, dry and burning; aggravation of symptoms under stimulants. Have various modifications of these symptoms according to the stage.

In the treatment of this affection the complete abstinence from alcoholic drinks is of the greatest importance.

Pathological changes in the liver.

As alcohol is easily absorbed by the stomach

, and as it mixes the portal circulation in a concentrated form, it is evident that the liver is apt to become diseased. The alcohol conveyed to the liver stimulates this gland to increased activity, and one effect of which is to eliminate a portion of the alcohol. Thus the liver like the stomach, is subjected to habitual over stimulation by direct contact.

It has been proven that alcohol prevents the blood from gaining the normal arterial character by its passage through the lungs; this causes an undue retention of hydro-carbonaceous matter in blood which should have been excreted by the respiratory organs. Hence as one of the functions of liver is to remove what of this matter there is left, an undue amount of work is thrown upon the liver.

In some persons, who are moderate drinkers, the liver is enlarged, the texture is softened, and has yellow spots on the surface, which is due to fatty infiltration. These changes differ according to intemperance of persons.

The most common result of habitual indulgence is the condition which is known as cirrhosis, "hobnailed liver".

This is characterized by an increase in the connective tissue in the interlobular spaces, and by a subsequent atrophy of the hepatic cells. The process consist essentially in a cellular infiltration of interlobular connective tissue. This condition not only obstructs the portal circulation, thereby producing ascites, but there is also diminished nutrition and functional activity of the gland substance, and the en-

congestion, which is due to fatty infiltration, very often gives way to contraction.

Effect on the kidneys.

As the determination of blood to the kidneys is one of the results due to the ingestion of alcohol into the organism, and these organs are visited to augmented action; it seems evident that excess of alcoholic liquors have some tendency, by their continual irritation, to cause disease in these organs as in others. Such indeed is the fact; and we have every reason to suppose that such is the origin of Bright's disease, chronic interstitial nephritis, which are now considered as the result of chronic inflammation and atrophy of the substance of the kidney, and the deposit of fat.

Action in the Nervous System

When taken in small quantities it stimulates the brain cells, the ideas flow more readily, and the senses are more acute. With the increased action in the Cerebrum the ideas become coherent, and the muscular movements are invigorated. With a larger quantity the functions of the brain are suspended, and the individual loses consciousness.

Delirium Tremens, a peculiar condition of the nervous system, is produced by excessive use of alcohol, especially that which is rich in fusel oil. Idiosyncrasy is an important factor in the production of this. There is little elevation of temperature about the head, the skin is pale and moist, insomnia, pulse is weak and feeble, tongue

is furred, breath fœtid, and there is vomiting or a sense of oppression after eating. The temper is irritable — the prominent feature being anxiety and dread of injury. Repose is interrupted by frightful dreams, and the waking state is often disturbed by frightful illusions; the person has hallucinations, hideous and grotesque figures appear on the walls, floor and ceiling; loathsome creatures seem to crawl along the bed; flashes of light dance before his eyes, and then suddenly the blackness of darkness occurs. In many cases his illusions are of a frightful character; policemen are after him for some murder he has committed; fiends and reptiles are crawling about him, great disasters threaten or have al-

ody moved his dearest friends. In some cases they are pleasing, he is surrounded by beautiful scenery, he hears music, and he sees dancing girls performing various feats before him. Often less milder cases; in which only some trembling of lips, hands and feet; deficient memory, tremor and occasional illusions.

Various statistics show that excessive use of alcohol is a great, predisposing cause of mental derangement.

It seems to act by impairing the nutrition of the brain, thus changing the chemical, physical and vital properties of the fabric, which produces a condition favorable for the action of certain causes, which would not affect the healthy organism.

This produces a peculiar insanity. The individual gulps down the fiery fluid in enormous quantities, and has not the power to resist. Person cant controle himself, has an irresistable impulse which drives him forward to ruin and poverty; when not intoxicated he views the habit with disgust; and while the paroxysms are on him he is regardless of his health, his life, and all that can make life dear to him; he dissipates his property, and easy becomes the prey of the designing.

There is no doubt that alcohol used to an excess causes paralysis and a predisposition to epilepsy, which is observed in the idiotic stare and the shambling gait of the drunkard.

The cutaneous circulation is increased by the ingestion of alcohol, which has a tendency, when habitually used, to produce various disorders in the nutrition of the skin, the most common being congestion and inflammation. Such disorders more often show themselves in the skin of the face, because the face partakes in the flow of blood to the head, and becomes more flushed than any other part of the body; and also the face, being more exposed to the external cold, which has a tendency to lower the vitality of the part, is most often the seat of such affections as carbuncle &c.

Acne Rosacea is very often met with in the face of the intemperate; and erysipelas in the inebriate, unless caused by some

injury, generally attacks the face.

Besides the various pathological changes produced in the secretory organs, the excessive use of alcohol impairs the nutrition of the whole body. In habitual drinkers there is a tendency to the deposition of fat, but this varies with the kind of beverage drunk. Thus those who indulge in malt liquors become fat and corpulent; while those, who consume a large amount of spirits often become lean and emaciated. The influence due to the use of fermented drinks and wine seems to be dependant on two things. In ale and beer there is a considerable amount of saccharine matter, which is either consumed in respiration, thus leav-

ing the fat in the blood is decomposed, or it is thus converted into fat. Wine contains a considerable amount of solid matter which is oxidized, thus sparing the nitrogenous material. Whereas in distilled spirits there is very little except alcohol.

Since as in normal healthy animal no considerable amount of fat is deposited, except for some special purpose, it is obvious that the muscular vigor and general tone of the system is impaired, and they are subjected to many disorders from which they could otherwise have escaped, and it requires more care to keep the system in a healthful condition.

Persons, who indulge freely, are less able to withstand ingurii from disease or accident. Thus an intemperate man receiving a slight injury will form a fatal attack of erysipelas. The surgeon often hesitates to operate upon an inebriate because he anticipates little hope of his recovery if operated upon. This class is often attacked with ulcers, due to a deterioration of the nutritive function. It was shown in the last epidemic of cholera in England, that those, who were accustomed to use alcoholic drinks in excess, were most often attacked, and the greatest mortality was among this class.

Among the various disturbances, caused by habitual excess, can be noted a predisposition

to lunatic and gouty diathesis. Gout is most commonly met with in those who eat and drink freely, and this is favored by use of alcoholic fluids which cause digestion & more food than the system can appropriate. Alcohol prevents the proper oxidation of the blood and the elimination of effete material by the morbid condition of the liver and kidneys, which is caused by alcohol.

It also often causes morbid changes in the heart and arteries. By repeated stimulation of the contraction of the heart, and by contact of a fluid impregnated with alcohol it produces a softening and degeneration of the heart walls, and sometimes sets up structural changes which favor the

production of hemorrhage.

From the foregoing remarks it is evident that alcohol either directly or causes a predisposition to various diseases by impairing the nutrition and debilitating the constitution. Since it is obvious that excessive habitual indulgence during the duration of life. That such a tendency exist cannot for a moment be questioned. No insurance Company will accept a policy on a man who has been accustomed to the habitual use of alcohol; and if it be discovered after his death that, contrary to his statement in his proposal for insurance, his habits were intemperate, the policy is declared void. Since the rate of mortality of insurance company is less than of

the average population.

That habitual intemperance in the moral conduct is demoralizing is shown by calculations from statistics of crime. That various grades amenable to justice is done under the excitement caused by alcohol is no fact. Hence we may assert that intemperance is the direct cause of crime. For besides the immediate provocation which alcoholic excitement may induce it is indubitable, that habitual use has a tendency to debase the moral tone, and to weaken the controlling power of the will

The dependance of alcohol in destroying the vital functions.

The idea, that the moderate use of

alcoholic drinks affords a stimulus to the
body which enables it to sustain physical and
mental actions more easily, is very prevalent.
In order that bodily actions, which are car-
ried on by the muscular system, through
the nervous system, is properly performed;
it is requisite that they should be supplied
with nutrition for their growth and regenera-
tion. We can not regard alcoholic liquors
as contributing to nutrition of muscular tis-
sue; except in so far as they may contain
albuminous matter in addition to the
alcohol. But, as albumen constitutes the
pabulum of muscular tissue, it is obvious
that it is derived immediately from the
food. Hence we may conclude from the
laws of physiology that alcohol does not

furnish the first requisites for the physical development of muscles and nerves.

Alcohol, when taken in moderation, stimulates the brain, and may enable a greater amount of physical force to be developed for a short time; but, as it is a well known fact that it is followed by depression, the gain is more than counterbalanced by the loss. Although, this may not be manifested at first, it is known in comparing the work ~~of~~ of those who drink and those who abstain from its use. The question is not to be decided by the amount of strength which may be put forth at a single effort.

It may be admitted that when the body is exhausted by fatigue, an alcoholic stimulus, by exciting the nervous system, may instant a

temporary strength, which will enable a person to accomplish the task which could not be done without it. But there is reason to believe that the power of continued action is impaired, and that the individual does himself more harm than good. Hence we may conclude that bodily labor is better born without this stimulation than with it, provided the digestive organs are in a healthy condition, and the patient can get plenty of good food.

That the use of alcoholic stimulants produces a temporary excitability of the brain, lighting up the scintillations of genius, and sustaining the power of prolonged mental effort when it would seem to flag, may be admitted. But since it has generally been followed by depression and exhaustion, it

is scarcely beneficial. It seems to have the power of causing creation and combination of thought, such as give rise to poetical imaginations &c. The most brilliant flashes of wit and humor have been produced under its stimulation; but it seems that the depression, consequent on such high mental activity, is often so marked as to render the individual unable to perform any mental work for a time. It is the testimony of general experience, that when men of genius have had habitual recourse to alcohol to excite their powers, they have died at an early age as if a result of the premature exhaustion of their nervous energy. Burns and Byron may be cited as examples of this result.
Hence, although their light may have bur-

ned with a brighter glow, like a combustible substance in an atmosphere of oxygen, the consumption of material is more rapid; and although it may have shone with less luster without such aid, we can but believe that it would have been steadier and less permanently quenched.

Alcohol producing heat.

The heat of the body is generally supplied by the oxidation of the oleagenous and saccharine matter consumed as food. This inference is confirmed by ordinary experience; every one knows how much colder he feels after fasting than after a meal, which is due to the oxidation of the food taken, and not, as is commonly supposed, to a full stomach.

Alcohol when introduced into the organism produces a general sensation of warmth, it furnishes material for combustion, and is more readily oxidized than oleaginous matter. When alcohol is present in the blood with other material that ought to be oxidized, it acts an injurious influence by retarding their combustion. This is effected in two ways: first, by taking place of combustible matter, and second, in preventing further oxidation of the blood. Hence we may conclude, that alcohol as a heat producing material, only acts beneficially when no other matter is waiting for removal by oxidation, and when the body is exposed to cold after a long fast. Although alcoholic beverages afford advantages equal, regarded simply

as material for combustion, yet their effect is of short duration, and for consistency they are far inferior to solid food; and when the stimulation, produced by these fluids, subsides the cold is felt with augmented severity, and the nervous influences are proportionably injurious.

Use of Alcohol.

In a certain class of cases, where an extraordinary exertion of animal power is necessary for the accomplishment of the object, and the subsequent depression is not an adequate reason for not employing the stimulus, alcohol acts beneficially. Under such circumstances, when the choice lies between the easy reaction and the satisfactory suffer-

ance of the duty, and the discharge of it as a task which must be got through at all hazards, there can scarcely be a doubt that if the performance of the former can be procured by the use of such a small dose as will excite the vital powers for a time to their usual energy, it will be followed by less of subsequent exhaustion than the latter.

Of course a corresponding depression is felt; but this exhaustion is rather traceable to the fatigue of overexertion than to the reaction consequent on over stimulation. For, in many cases alluded to, the amount has only been sufficient to keep the vital powers up to par, and not to quicken the circulation and to exalt any

of the normal functions: and its use for these purposes is liable free from the objections, which have been urged against its habitual use. But it must not be supposed that persons accidentally be had to alcoholic drinks without impunity for these purposes. Because, if so used, it would derange the various pathological conditions. The habitual resort to such a practice is fraught with danger; since it encourages the delusive idea, that the system that is thus aided for a time, is really doing no harm to the system. The most beneficial results from such use of alcohol is observed in the abstinent, since the quantities which dispose again to induce these effects are small,

and whatever bad results it may produce is more readily dissipated in the interval which elapses before any more is consumed.

The use of alcohol is often beneficial in fortifying the system against a temporary exposure to cold or wet, separately, or in combination. Considered as simply a heat producing substance it is inferior to oleaginous matter, but when taken in the system, it has for a time the power of keeping off the chilling influences of severe cold, in virtue of the augmented circulation which it induces, and particularly the determination of blood to the skin which it favors.

Alcohol, however, is not as potent in

maintaining the animal heat as muscular exertion, which acts by increasing the circulation. But when circumstances prevent its employment, and the choice lies among the best external means for protection – as in case of a man sitting on a vehicle exposed to the cold and wet; and we seem justified in thinking that the duration of the exposure will be short, it may be better resisted by a stimulating dose of alcohol, than in any other way.

Small amounts of alcoholic liquors seems beneficial in cases where there is a deficiency of nutrition; the alcohol supplies materials for animal heat, for which otherwise the animal tissues would have been

attacked, it also acts as food, being oxidized, it supplies muscular, nervous and sensory forces, it also stimulates the brain thus relieving the mental depression, and making the individual more cheerful and hopeful. In weak and debilitated people with impaired digestion the moderate use of alcohol is very beneficial, it stimulates the digestive organs and thus causes more food to be appropriated to the organism.

In pregnancy the woman often suffers from irritability of the stomach, she vomits all her food and consequently becomes very much emaciated. In these cases a small amount of wine or champagne with ice is the best agent that can be used.

Likewise in lactation, when mother's digestion is impaired and her stomach is irritable, alcoholic liquors may be used with good results. Again in certain conditions of childhood, as scrofulous diathesis, benefit is derived from the habitual use of fermented liquors.

Those who maintain that alcoholic liquors are not essential for the ordinary sustenance of man, and that they, when habitually used in small quantities, are likely to be injurious than otherwise, may still maintain with perfect consistency, that it may be a most valuable agent, when administered with caution and discrimination, in various forms of disease. We have seen that alcohol

when introduced into the system, acts as a stimulant in augmenting the force and frequency of the hearts contractions; we have found that it has the power of supplying animal heat, which may be advantageously employed in the absence of other material. Hence it seems that alcohol may be advantagously employed to assist in arousing the system from the effects of various agencies, which tend for a time to produce fatal depression of the vital powers, such as crushing injuries which produce a violent shock, under the primary effects of which, the system appears likely to sink. But great caution should be exercised in their admin-

istration, and they should not be given unless there is positive evidence for their use. These stimulants should be given in small amounts and frequently repeated; for it is certain that reaction will follow a primary depression, and if stimulants have been unnecessarily used, the difficulty of controling the reaction will be increased; and if more stimulants are used than are absorbed, the temperature will be much higher.

In the class of cases to which reference has been made, the shock is temporary, and if the patient can be kept alive a great point is gained. There is another class of cases, in which the prostration is caused by morbific agency, and it is necessary

to keep up the vital powers; since, if the system can be sustained a few days, the patient has a greater power of recovery. We have examples of such cases in the many forms of fever, especially the continued fevers, as typhoid and typhus. The immediate cause of death in such cases seem to be due to exhaustion; the heart becomes weak and the pulse very fast. The indications for the use of alcohol is weak and frequent action of the heart; now the effect of alcoholic stimulants, when they act beneficially, is to render the hearts action more vigorous and at the same time slower. Again, with this state of the circulation, we generally have a low muttering delirium, stupidness, and a tendency to subsultus tendinum; and if the wine

act beneficially, it renders the patient more tranquil and disposes him to sleep. Under the influence of stimulants, in suitable cases, the skin and tongue become moistened, and the breathing more deep and slow; but if the stimulants act injuriously, the skin and tongue become dryer, regardless the delirium, induces coma vigil, and the respiratory movements become more hurried. Concurrently with failure of heart's action, there seems to be a deficiency of heat producing material; all that was primarily stored up in the body having been consumed by the respiratory process. In this condition no oleaginous material could be digested to furnish matter for the maintenance of heat; nitrogen absorbed is taken in the circulation by simple endosmo-

is, without any preparation whatever, and can be immediately applied to the production of heat. The chief utility of alcohol in fever diseases is not as a stimulant, but as a food; it furnishes material easily digestable, which can be applied as muscular, nervous and gland force; furthermore it stimulates digestion, enables more food to be taken and disposed of, and thus contributing indirectly to the powers of life.

During the stage of convalescence from severe and acute inflammatory affections, in which the vital powers have been depressed, it often happens that the use of alcohol acts beneficially, and this apparently in two ways: by raising the nervous system from that low irritative state caused by the depressing;

and by increasing the digestive power of the stomach and the nutrition of the system, so that reparation takes place more rapidly, and the general vigor of the system more readily restored. When alcoholic stimulants are thus used great care should be exercised in their administration, both to prevent them from doing harm by an over dose, also to avoid bringing the system in the habit of dependence on them, and thereby predisposing it to the various evils formerly described.

Alcoholic liquors may be had recourse to with advantage in certain conditions in which there is a great drain upon the nutritive material, owing to some disordered action, which, at the same

time, tends to lower the vital powers of the system, such disorders that produce extensive suppurating tracts. We should anticipate a beneficial result of alcohol in such conditions by augmenting the digestive powers of the stomach, and thus enabling it to prepare and appropriate a greater amount of nutritious material which the system requires while its vital power is sustained under the depressing influences of the disease.

End.

Should Doctors Have a Better Education?

In this question there are two things implied viz: an education before entering upon the study of medicine, and an education after entering upon its study, or in other words, should Drs. have a higher literary education and a higher medical education? I shall take up the first of these implied questions and try to answer it in as concise and impartial a manner as possible and then the second.

7

It is a well known fact to every person that we are living in an age of advancement and enlightenment and that there is a high average standard placed on every thing that requires knowledge and intellect to perform. Even the farmer who in years gone by thought it only necessary to have a strong constitution and well developed muscle to successfully carry on his business, now finds that if he would be successful, he must know something of the sciences and must have his mind aided by periodicals and magazines

that are especially devoted to his work; and so in many other things. Does the average of the Dr. keep up with this? I think we have only to enquire of the many young men that enter the almost countless medical schools and we will find to our dismay that the learning of the majority is exceedingly limited. It has almost gotten to be a saying that a young man may be a Dr. if he is fit for nothing else in the intellectual world. It is said by some that if the medical schools should require a high standard of education before they would

admit candidates into them, it would debar many ambitious and deserving young men from entering the profession they not having means to secure an education, Not so, I say. If he be ambitious and deserving there are many ways of getting an education before coming to a medical school. This is a country of resources and no ambitious man need despair. Even if it did debar deserving young men from entering the profession, is that any reason why a man should be placed on the country holding the lives of many of its people

in his hands, whose mind has never been fully developed as God intended it should be; one who is almost dwarfed as it were; one whose mind has not been developed as his body? For does not the mind develop by exercise and study? Is it not by a close pursuit of the different branches of study that our college curriculi have, that the mind is fitted to engage with the great problems that face us, when we go out into the world to meet the stern realities of life? Is this not in a great measure what our colleges are for? It is not

only for the exercise of training given to the mind that I think men should be better educated before entering on medical studies, but also because in the study of medicine the etymology, terminology &c of medical terms are mainly all derived from the ancient Languages, and a person studying medicine without a knowledge of these is groping in a darkness from which it is almost impossible for him in his life time, to extricate himself when the entire upon the study of medicine he is far behind the man that is well acquainted with these, nor will he be able to keep

us with the literature of medicine as the educated man does. Let us closely look at the two sides of the picture. Here is a young man that has had a common school education; he wishes to study medicine; his mind is in an undeveloped state; he can not reason clearly; he has no fine conception of anything; it takes a long time for his uneducated brain to grasp a thought; he takes up literature and he cannot tell the meaning of half the words he comes across and if he is desirous of learning he must needs look up the meaning of them all, which takes

up a great deal of the short time allowed. He passes on to lectures and finds that he can hardly understand any thing the lecturer says and in every thing he does he finds that he has an exceedingly steep hill to climb, and sometimes it seems almost ready to fall on him. He has graduated. He goes out to practice. He is thrown with all classes and phases of society. He knows not human nature. He knows not how best to treat society to accomplish his ends. He cannot talk fluently, elegantly and intellectually with some to gain their confidence

and esteem. He cannot accommodate himself to the low phases of society: to be more concise, he is a diamond in the rough that has little value compared to it when it has left the artist's hands.

Now let us look at the other side. A man is well educated, classically, scientifically, morally, socially: his mind is educated capable of drawing a conclusion from obscure premises, capable of grasping a great thought: his mind has been so exercised that it is capable of doing much in a little while; he has

only to read to know: he has only to hear to understand: he has only to see to believe: he is able to do a vast deal more continually than the former one: he can grasp the meaning of a vague term by going back to its root and finding the original meaning: one who has graduated in our latter time, has gained more knowledge & wisdom than the former for he had not so much ground to go over, and his mind could grasp it sooner: he graduates & goes to meet his duties: he

wins the esteem and respect of all whom he meets, and hence is successful. He knows how to talk to the rich and the poor, the educated and illiterate. Can any one fail to see what the answer will be to the question? It is in my mind most emphatically yes, and I think ere many years all reputable medical schools will require an examination before admission.

Now I come to the second and I think more important question, viz: Should we have

a better medical education
I will answer this at once
in the affirmative and include
my remarks under two
great reasons 1- for the good
of the people at large and 2-
for the good of the profession.
In the majority of cases
when the physician begins
the practice of medicine it
is an experiment probably
he has never seen a case
of the kind he meets and
every thing that he does
must be by guess. He may
try to do the best he can for
suffering humanity, yet
from mere ignorance on

his part he may lose his patient, and thus one more life is lost that may have been saved. Human life is too precious to be pandered with. Every thing that tends to destroy life or the energy of man, or any person that does not keep that life and energy so it may be applied for some purpose, when it is supposed to be placed in his power to do so is producing a wasteage of human force, a waste that may be applied to something that might elevate the people to a much higher standard. There are no units in this

world and when a physician through ignorance allows the life of one of his fellow men to be taken away, he is creating an evil against the whole human race, and it may be taken away from many a benefactor. Great men consider as I have said before, that there are no units among mankind, and that every time that does not save life and energy of man when it is placed in their keeping is an evil, therefore, would it not be for the good of the people at large if a physician were better

educated? Might it not be
if he were better versed in
his profession that more
lives would be saved by him?
Thus from a moral point
of view. It has been said
by one of Bath's physicians
that it is not necessary to
educate a man to a high
standard to go out west to
treat cowboys, ignorant miners etc. Such teaching he
instills into the minds of his
students and as a natural
consequence the college in
which he is a professor, has
a very low standing in the
United States. Does he think

The life of a Texan cowboy has no more right to be saved than the life of the insipid society people, who are not half as useful to the human race as the Texan cowboy? Does not the money making idea enter largely in all this? Now for the last proposition, physicians should be better educated in medicine for the good of the profession.
It is alas too true that many people can point with the finger of scorn to many Drs and say he knows nothing, and then draw the conclusion that none of them know any

thing. If the profession at
large were better educated,
the confidence of a great
number of people would be
gained, quackery would not
have such a hold and the
profession would be elevated.
If we trace the history of medi-
cine backwards, we find that
it always attained its greatest
notoriety and was most respected
in the most enlightened ages,
when there were men at its
head who were of the first of the
age. When quackery and witch-
craftery were at their height, people
were plunged in the lowest
depths of ignorance and degradation

But in the fitful gleams of enlightenment we find some shinning light in the profession whom the people thought well enough of to hand his name down to posterity thereby showing that the profession was held in high esteem on account of the man. Is it any reason that the profession of today should not give its young men a good education because a few quacks do a thriving business and make a vast lot of money by their nefarious acts, and by working on the credulity of the people? Is it any reason

That the wheels of the golden chariot of the rising individual ambition should drag down and grind to death under it the many people, who must themselves be carried on it, as it slowly drags its way through the heavy quicksands that clog its wheels, and through which it makes little progress? Should we do without the steam engine, the C. P. R., the steamboat, the telegraph, the telephone and the many other inventions that have so benefitted the human race in the last few years, because we have done without

them before? That seems to be about the argument some would make. That the profession is awakening to the fact that a better education is necessary, I think is apparent from the sentiment expressed by many, both privately and publically. Whether there will be any advancement made rests with the profession, I think: for on them devolves the labor of educating the public mind to a higher standard and seeing that the young men that tend our lecture halls have a better education.

And I hope ere long see the day when England or any other country can not point the finger of scorn at America and say that half her doctors are quacks.

Respectfully,

R. B. E. Castell

Oakland,

Md.

Typhoid Fever.

Medical Thesis;

by,

Homer L. Clark.

Feb. 1885. University of Maryland.
School of Medicine.

Prominent among the acute specifics with which we meet in our own country stands Typhoid Fever, synonomously called Pythogenic or Enteric Fever or Abdominal Typhus. It may be defined as an acute febrile affection resulting from the introduction into the system of a certain specific poison.

I shall first consider the subject from a Pathological point of view, examining into the Etiology, Mode of Infection, Anatomical Characters and Post Mortem Changes and second from a more purely Medical and Clinical standpoint, considering the Semeiology of the disease [illegible]

complications attendant upon and sequelae following it, its Duration and Terminations, the Diagnosis, Prognosis, and the Treatment which should be brought to bear against it.

That Typhoid Fever originates from a specific poison, the most profound of Pathologists teach us. The nature, however, of that poison has been in the dark and is yet, to a certain extent a mystery. A micro-organism, a bacillus of the class of the "Desmo Bacteria," rod-shaped, in length 1/3 the diameter of a red blood corpuscle, 1/6 its own length in diameter, has been described by Klebs Koch and others as being this

specific bacillus. This Typhoid Bacillus, as it has been termed, was found by these observers in the affected Peyers Patches the Mesentery, Spleen Kidneys and occasionally in some cases in the Urine, almost invariably in the Faeces of Typhoid patients. This Bacillus has been isolated and successfully cultivated. Inoculation has failed, but this should be considered due to the fact that no animals are ever infected with a similar disease, and as men can not be obtained for such purposes; thus one link in the chain of evidence is wanting. Whether these organisms primarily arise from decaying animal matter and typhoid stools or whether these substances merely ach

as a culture soil for them or their spores is now, I believe, satisfactorily settled.

These facts then, give us a specific poison as the **Exciting Cause** of the disease. The inspection of the system by such a means has often been referred to as analagous to the sowing of seed. This presupposes the seed to be sown, that is the micro-organism already described, and what is fully as important the soil. This of necessity brings us to the **Predisposing Causes** which may be briefly enumerated as Age, Season, and Individual Susceptibility.

1st. Age is of material importance. The disease occurs far more commonly during youth and adolescence, rarely

in infants and individuals exceeding the age of 45. Half the cases occur, it is reliably stated, between the ages of fifteen and twenty-five.

2nd. Season is to be considered as a predisposing cause; inasmuch as epidemics of Typhoid Fever occur more commonly in Autumn especially after a hot and dry summer season.

3rd. Individual susceptibility is to be reckoned as it is well known that recent comers into an infected district are more liable than old residents, and I am inclined to think that some individuals and families have an idiosyncracy which predisposes to the reception of the poison- Over-crowding

conditions of poverty and wealth and sex in no way predispose or protect. Various chronic and acute diseases are said to protect as is also the occurrence of pregnancy. The repeated occurrence of the complaint in the same individual leads me to believe that; one attack if it does not predispose to at least affords no tangible protection against another.

Mode of Infection— Various theories are advanced as regards the manner in which the bacilli are conveyed to and the mode and point of their entrance into the system. The most common of all modes undoubtedly is the drinking by inhabitants of the infected community of water which has be-

come contaminated with the typhoid bacilli either from the excreta of typhoid patients or any other source either of them themselves or their spores.

Emanations from typhoid excreta carry the poison through the air though possibly only to a limited extent comparatively.

That milk may act as a carrier of the contagium is abundantly shown by epidemics of the disease which have been traced directly to this source, but even in these cases the milk could easily have been contaminated by water used to wash the containing vessels, or worse, in the adulteration of the milk itself.

The theory has been advanced that

milk while warm acts as a culture fluid in which the germs rapidly multiply. Be this as it may we still have Water as the great disseminator of the Typhoid Poison -

The point of entrance into the system has been thought by some assistant, Gaffky to be the mucous membrane of the intestine alone. This is mere theory and incapable of demonstration no matter how probable it may seem.

Anatomical Characters -

As the characteristic lesion of Typhoid Fever consists in certain morbid changes in connection with Peyer's Glands and the Solitary Glands, I shall, after speaking of the Path-

Mortem appearances and referring briefly to the general condition of the Alimentary Canal shall more particularly refer to special processes, referring cursorily to others of subordinate interest and importance.

Post Mortem examination reveals more or less emaciation, commensurate with the duration and severity of the attack. Rigor Mortis, while not of long duration is distinctly marked. This latter in connection with the absence of rapid putrefaction, intense post-mortem congestion and dark color differentiates from Typhus. The eruption does not persist post mortem. Any complications present their own peculiar anatomical lesions.

The general condition of the alimentary canal may be spoken of as hyperemic, swelling and softening if found are probably due to post-mortem changes.

The condition of Peyer's Patches and the Solitary Glands will vary according to the stage which the morbid process has reached. The Morbid Changes in **Peyers Patches** may be divided into 4 Stages. 1st. Stage of Deposition or Enlargement. 2nd Stage of Destruction. 3rd. Stage of Ulceration. 4th. Stage of Cicatrization.

1st. The first alteration observed is a state of enlargement due to the deposition of morbid material consisting of granular matter, oil globules and

cells having no special characteristics. It has been thought by some that this morbid material is absorbed from the blood but it is more generally considered as the result of the proliferation of the cell elements already existing. The patches appear under by prominent being raised from 1 to 2 lines above the mucous membrane, varying in color from a pinkish gray to various hues of red, surrounded by a vascular ring. The corresponding peritoneum is injected. The substance seems to be adherent to the muscular and mucous coats of the gut, is of soft consistence and presents a grayish white or pale red co-

ulcer or section. [illegible] this morbid change is preceded by [illegible] or not is unknown. The period of its occurrence has been variously stated. Trousseau places it as from the 3rd to 5th. day of the attack. The Salivary glands if involved present the same general appearances ranging in size from that of a millet seed to that of a pea. These glands are not always affected but in rare instances may be alone involved.

2nd. Stage of Destruction.- In rare instances the morbid deposit may be absorbed without any breach of surface; the glands may simply rupture and discharge their contents; more often and as a rule

the Peyer Patches die slough and go into—

3rd. Stage of Ulceration.— the sloughing will usually occur in different parts of the same patch, but extension of the process the entire gland may become one large ulcer. The Characters of the Typhoid Ulcer are;— a smooth base formed by the submucous or muscular coat of the intestine; edges thin and undermined consisting of a fringe of mucous membrane, best shown by flotting the gut in water.

4th. Cicatrization is brought about by the resolution of infiltration, union of the undermined edges with the base of the ulcer and the formation of an epithelial covering growing

inward from the margin. The gland structure is never regenerated. The gut is not puckered by the cicatrices. Many Pathologists describe but 3 stages considering the 2nd. as above described merely as a stage of the ulcerative process. The number of glands involved in the margins from 2 or 3 up to 20, 30 or even more. The glands throughout the entire small intestine may be the seat of the lesion but those nearest the ileo-caecal valve are always most affected.

Perforation may occur, from extension of the ulceration, extensive sloughing involving the peritoneum and leaving an opening on the separation of the slough, or by rupture or laceration of

[illegible] from any cause, Perforation has been known to occur after cicatrization resulting no doubt from secondary ulceration The

Large Intestines are usually distended by gas and may be the seat of deposit and ulceration and cases have, seemingly authentically, been described in which the Colon was almost the only portion of the alimentary canal involved. The

Mesenteric Glands, belonging to that part of the Mesentery corresponding to the portion of the gut affected, always enlarge and may rupture or ulcerate.

The **Spleen** enlarges, softens, becomes dark in color and there is an increase in its lymphatic elements. If recovery

exsuc then superabund ant elements are gradually absorbed and the organ returns to its normal condition. The **Liver** is occasionally congested and softened and in rare instances the Gall Bladder and its duct become catarrhally inflamed or ulcerated. The **Kidneys** may be congested and their tubes loaded with detached epithelium. The ordinary signs of Peritonitis will be present, post mortem, if it has existed during life. Nothing is observed in the **Blood and Circulatory System** except that the blood is dark and fluid and coagulates slowly. The heart may be a little softened. Nothing is observed in connection with the nervous system except that

the process of serum [illegible]

For convenience of description, the course of the disease has been divided into certain Periods and Stages by various [illegible]. The following is probably as good a division as any.

1st. Period of Incubation.

2nd. Period of actual Attack. { Early Stage. / Advanced Stage.

Period of Incubation is of doubtful duration and is variously stated at from 8 to 12 days. There are no distinctive symptoms. A general feeling of Malaise is often all that is observed.

Actual Attack. The invasion as a rule is gradual and mild, but some

cases are at this time attended by violent vomiting and purging.
Frontal headache is a prominent symptom. Giddiness with noises in the ears, general pains in the limbs, restlessness, disturbed sleep and slight chills are the nervous symptoms. Occasionally there is nausea and vomiting. Epistaxis is frequently present. There is a greater or less degree of Pyrexia. Diarrhoea may be the only prominent symptom for some time. Such are the symptoms accompanying the invasion of the disease. [illegible] fully established the clinical characters are as follows, during the first week or ten days that is in the, ——

Early Stage: [illegible] degree pressure, not amounting to prostration, is felt. There is no peculiarity of expression except that there may be a circumscribed blush on the cheeks. The skin is usually hot and dry but may be moist. The degree of hyperia increases, the temperature rising in characteristic manner to be hereafter described. The Pulse ranges [illegible] to 120; is somewhat weak and soft is variable being more rapid at nights. The tongue is at first moist with a thin whitish or yellowish fur red at the tip and edges, small and pointed with enlarged papillae. Exceptionally it is found

thick and heavy, coated or [illegible] and glazed. The lips are dry and parched; the mouth feels slimy; there is much thirst and loss of appetite; nausea and vomiting are frequent.

Abdominal Symptoms which are the most diagnostic are prominent in proportion to the severity of the case and consist of pain and tenderness, especially in the right iliac fossa when gurgling may be produced by pressure or manipulation, more or less tympanitic distension and diarrhoea. On physical examination the Spleen is felt to be enlarged. The diarrhoea varies in different cases the number of stools ranging

from two or three up to two or three and twenty four hours, from three to six in ordinary cases. The discharges present no peculiarities at first but soon become characteristic. The stools are thin and somewhat resemble pea-soup in appearance. They are of an offensive odor, often ammoniacal and are of a strongly alkaline reaction. They contain salts of Ammonia and Soda, triple Phosphates, albumen, the remains of food, Epithelium shreds, mucous corpuscles and blood.

Head Symptoms are not particularly marked in this stage. The headache dizziness and buzzing in the ears persist. The mind is clear but inac-

tive. Sleep is disturbed but there is no delerium. Epistaxis is frequently seen. There may be slight bronchitic symptoms, dry râles being heard over the chest. **A Specific Eruption** is present in a majority of cases, not invariably, being when present pathognomonic. It first appears from the 7th to the 12th. day but has shown itself as early as the 4th. day and has been [illegible] as the 20th. The emption consists of separate spots, which are round, lenticular or oval in shape varying in diameter from ½ to 2 lines. They are slightly indistinctly elevated on the surface, with a well defined margin and a soft feel. They present a char-

acteristic pinkish or rose color. They appear by preference on the abdomen, chest and back and come in crops each spot lasting from 2 to 5 days. Their color fades on pressure and returns slowly when it is withdrawn. The number of spots present at one time rarely exceeds from 12 to 20. Frequently there are but 2 or 3. They do not persist after death.

Advanced Stage. All the symptoms before described as attendant upon the early stage may continue without particular alteration until convalescence begins, the tongue remaining moist throughout and no marked degree of prostration being present. This is uncommon and

The patient emaciates and becomes much weaker sometimes very prostrate. The face is flushed, the conjunctiva may be injected and the pupil dilated. The tongue tends to become dry and brown or red, shining and deeply fissured. The breath has an offensive odor and sordes collect on the lips, gums, and teeth. There is no diminution of the abdominal symptoms. More often they are intensified and hemorrhage from the bowel is liable at any time to occur. The diarrhoea is persistent sometimes obstinate. The Spleen continues to enlarge and soften. There is a marked change in the nervous system.

The headache and general pains cease but there is an increased amount of dizziness and a variable amount of deafness is observed. The mind becomes affected as demonstrated by somnolence mental confusion, and delirium. The latter occurs at first only nocturnally, but may persist after a time through the day. Generally there is drowsiness by day, and at night delerium, which is of an active, noisy, talkative, violent kind. Sometimes the patient lies in an apathetic state. Tell him to put out his tongue. Slowly, tremblingly it comes out remaining for an indefinite time the patient seemingly forgetting his abil-

ity to urinate. Epistaxis is common. Sudamina may appear in the 3rd or 4th. week and bed sores may occur at points pressed upon. Respiration becomes hurried and shallow and marked signs of bronchial complications exist. A dry hacking cough when present is considered by many practitioners.

When Typhoid Fever ends in recovery a gradual subsidence and amelioration of all existing symptoms is observed. Defervescence Takes place by Lysis not Crisis. Convalescence makes slow progress and may be retarded by various complications or sequelae as well as by relapses.

The **Temperature** of typhoid fever is very characteristic. The ascent is quite regular and gradual and continues for 5 or 6 days until the maximum temperature is reached. The evening temperature is about 2° higher than that of the same morning and there is a morning remission of about 1° as compared with the evening temperature of the ~~preceding~~ preceding day, so that the daily rise in temperature amounts to about 1° until 104° to 106° is reached. The temperature now remains stationary, with a slight morning remission, for a length of time varying with the severity of the attack.

The decline is also peculiar being first indicated by a more distinct morning remission. In a few days the evening temperature falls and the morning remission decreases [illegible] even 2° to 3°. The length of time until the evening temperature falls to normal is variable. Complications and sequelae not infrequently lead to irregularities in this direction.

Certain **Varieties** of Typhoid [illegible] described, depending on the main upon the prominence or severity of certain or all symptoms.

1st. **Mild**:- This form includes mild cases and the abortive variety described by some writers.-

2nd. Grave forms subdivided into Inflammatory Abdominal, Hemorrhagic etc. according to prominence of the symptoms which the names of the subdivisions indicate.

3rd. Insidious or latent form, also called Ambulatory from the fact that the patient frequently walks about during the entire attack. The first serious symptoms may be those of Perforation causing almost instant death.

As the Treatment of all these forms is to be conducted upon the same general principles, further consideration of them is uncalled for.

Duration and Terminations.— The duration of the malady is from three to four weeks. The average of fatal cases is stated to be 22 days. Death may occur during the first week— Complications may prolong the disease, as may also relapses.

The terminations are Complete Recovery, a state of permanent ill-health or Death. The average mortality is about one in six but varies widely in different epidemics.

Causes of death are gradual Asthenia, alone or combined with Anemia, Chronic loss of blood, from intestinal hemorrhage or even Epistaxis, poisoning of the blood as

a result of hyperpyrexia, imperfect excretion, or the absorbtion of septic matter. Complications, especially Perforation and Peritonitis.

Diagnosis.- A careful grouping of symptoms especially those of an abdominal nature, particularly diarrhoea, the characteristic temperature and specific eruption will generally lead to a correct diagnosis and serve to differentiate from other diseases presenting similar clinical characters.

Prognosis.- A positive [illegible] cannot be given. Constipation, slight Diarrhoea, comparatively low temperature and only moderate delirium are favorable indications. Excessive delirium,

signs of Perforation or Peritonitis Hyperpyrexia and irregularities in the ordinary course of temperature are grave signs. A sudden and rapid rise or fall of temperature indicates the approach of complications and unfavorably influences a prognosis.

Complications and Sequelae -

Affections of the respiratory apparatus, among them Bronchitis, Pneumonia, and acute Tuberculosis, are common complications. Congestion of the kidneys and Cardiac Softening are others, but those most to be feared are Perforation and Peritonitis and Intestinal Hemorrhage. The symptoms of the latter are; fall of temperature and ex-

cape of blood from the bowel.
Sudden and acute pain in the right iliac fossa, heavy chills, rapid pulse, cold sweat, green vomit, and collapse indicate Perforation.
Death may occur within 24 hours.
If the perforation is extensive; collapse and death without pain may ensue.

Sequelae.— The most important of these are Phlegmasia Dolens, Phthisis, mental weakness, general or partial Paralysis, Neuralgia Otorrhea or a permanent state of ill health which is thought by many to be due to the destruction of the glands and villi of the

intestines

Treatment.— That there is no specific for Typhoid Fever has been abundantly proven by the failure of all who have tried so called specific treatment.

Several modes of "special" treatment have been described; as Antiseptic, Hydropathic and Eliminatory Etc, etc. however has shown, purely Expectant and judicious Symptomatic treatment of more value than all the "fancy" methods devised by eager aspirants for fame.

Hygienic Precautions.— All general sanitary precautions are of great value; cleanliness, proper surroundings, good nursing, the cutting off of the

water supposed to be infected, but above all the [illegible] disinfection and speedy removal of all Typhoid excreta and filth. Without exception, the patient should be put to bed and kept there until fairly convalescent.

Diet.- The greatest of care should be exercised in regard to this. Nothing but non-irritant, nutritious liquid nourishment should be employed, at stated intervals and not too frequently. Probably good milk is the best form of nutriment.

Beef-tea arrowroot, and cust[illegible] toast water and barley water, panada and mucilaginous drinks are

beneficial. Fruits & kinds are to be interdicted. These dietary cautions must be observed in all cases and especially those in which there is any suspicion of extensive ulceration.

Many cases may be brought through by these means alone without any medication whatever. As alcoholic stimulants are often required as food, as well as for special indications it may be well to consider the subject in this connection. The prejudice of some against them no doubt arises from effects which have followed their unintelligent use. Judiciously administered they are of inestimable value. Often they are not required, but

in advanced stages when strength and vitality are impaired and the circulation weakened they are directly indicated. In excessive delerium if accompanied by weakness of the circulation or signs of cardiac failure is an indication for alcohol, and the best form for its administration is either brandy, whiskey or wine. The effects must at all times be carefully watched

Excessive temperature is to be controlled by large doses of quinine, sponging with a solution of quinine in alcohol, cold baths and other antipyretic means. Mineral acids and other refrigerants are held, by many, in high repute. They

are rarely called for. Calomel has largely fallen into disrepute, but alterative doses in early stages have undoubtedly been productive of good results. Vigorous Antiphlogesis by general blood letting and immense doses of Calomel, as formerly practiced, is not only devoid of benefit but productive of absolute injury. Abdominal symptoms must be treated as they arise. A tendency to great pain and much tympanitis is to be combated by the careful and judicious application of heat and moisture to the surface of the abdomen by means of Linseed meal poultices and fomentations and best of all by Turpentine stupes

Leeches and Incision have been used with success in young and plethoric subjects. Opium internally may be required to relieve pain. If there are no more than two or three stools daily it is advisable to let the diarrhoea alone. If it is excessive, enemata of starch and laudanum may be employed. Opium by the mouth in combination with some preparation of Bismuth is a favorite preparation. Dovers powder alone or in combination with Bismuth, Chalk Mixture combined with Bismuth and Tinct. Opii. and vegetable astringents may be employed. Obstinate cases may require Acetate of Lead, sulphate

of Copper or Nitrate of Silver. In those cases which are attended with Constipation aperients must be very cautiously used, for diarrhoea once established may quickly become troublesome. A teaspoonful of Castor Oil or a simple enema every third or fourth day is recommended.

Excessive Tympanitis may require in addition to external applications, enemata containing Turpentine or Turpentine by the mouth. The passage of a long Oesophagus tube into the Rectum may give relief.

If Intestinal Haemorrhage is not controlled by the remedies ordinarily employed for the diarrhoea, - full

doses of Tannic or Gallic Acid, Tincture of Iron or Turpentine are indicated. In fact Turpentine is a remedy the value of which, in typhoid Fever, is often lost sight of. Ergotin hypodermically has been followed by good results. Ice may be given to suck and ice pack may be applied to the ileo-caecal region. If the coating of the tongue comes off in patches, Turpentine in doses of gtt. XX. every three or four hours, and continued for a day or two, should be employed. In Perforation ensure all food should be withdrawn or given only in minute quantities. Absolute

rest must be enjoined and secured and Opium administered freely either by the mouth or hypodermically even to the verge of narcosis. Epistaxis may require local styptics or plugging of the nares. All other complications as well as sequelae should be treated according to their own therapeutic indications.

Care must be exercised, during convalescence, especially in regard to [illegible] the employment of purgatives.

The diet should be gradually improved and nourishment taken only in moderate quantities. [illegible] to insist

particularly upon this point, for patients are often much inclined to eat in excess and can not understand why they should be restricted in diet when their appetite is good and even voracious.

Tonics and change of air are beneficial. Cod liver oil and, Wine, if properly used, are of great service. If an aperient is required a small dose of Castor Oil or a simple enema may be administered.

During the entire course of Treatment it must be borne in mind that we are dealing with a disease that must

and will run a favorable course.

Too much interference may be as prejudicial to the patients safety as entire neglect.

The Physician treating a case of Typhoid Fever has been well likened to, "The Pilot of a vessel in a storm. He can not hold the elements in any more or still the tempest; but by the exercise of his knowledge and judgment, he may guide the bark safely into the haven.

Ague. Intermittent & Remittent Fever

Is a specific and non-contagious fever and is thought to be produced by Malaria. The Spleen generally becomes enlarged if the fever becomes Chronic or if the poison is not eradicated from the System. One attack predisposes a person to subsequent attacks. It generally consists of three stages, First Cold, Second hot and third Sweating Stage. As one person Cannot Communicate it to another person it is safe to presume when we see a person suffering with it, that such person has been exposed to the poison by living, or being for a short or long time in such districts, or Countries as are favorable to the production of the poison. The Malarious poison is said to be manufactured in the Soil of Malarious districts and is exhaled from it in

Correspondence with Minister and Station

warmth or heat, has quite an influence
over it also. I have been informed by
a Professor of the Practice of Medicine in
the City that it does not exist in the air
or atmosphere in Countries or localities
where the temperature does not rise
above 50° F. What this miasma is,
I have not been able to find out.
I believe it is one of the many unsettled
questions related to Micro organisms
of which comparatively little is known
as yet. I believe the theory that it is
a living thing is gaining or increasing.
Others are of the opinion that it is a gas
and others that it is a decomposing organic
substance. We will therefore have to wait for
more scientific information about it.

Symptoms of [illegible]

[illegible] of incubation [illegible] varies very much. Cases are recorded where persons who have been exposed to the poison, that it has manifested the symptoms of fever in twenty-four hours afterwards. On the other hand it has been that persons who have been exposed to the poison have not had any symptoms of the fever for several months afterwards and that in a section of the country where it did not exist outside the system.

Fever has clinically two forms which passes over into the other by insensible gradation. The first is which is Intermittent and is common in temperate climates. The second Remittent fever which occurs mostly in the Tropics is much more severe and dangerous.

[illegible]

Tertians or double Quartans. It is generally believed that the febrile paroxysms usually Commence earlier & last longer in Quotidians than either of the other varieties, often lasting from eight to twelve hours.

In Tertians its duration is from six to eight hours; in the Quartan from four to six hours. When each successive attack commences earlier in the day than that which immediately preceded it, it is said to anticipate; when the interval is prolonged the periodic paroxysms become later & later, and are said to postpone. In the former case the disease generally becoming worse or more severe in each attack.

Remittent fever. This form occurs most frequently in tropical Countries & Climates and is much more severe and dangerous th[an]

[illegible]

has been spoken of. Its distinguishing feature is that the febrile paroxysms which recur once or sometimes twice a day, are not separated from one another by intervals of complete apyrexia but are to be regarded as exacerbations of an abiding febrile state. The cold stage of each exacerbation is always shorter, sometimes indicated by a few minutes of shivering or chilliness, and sometimes not noticeable. The hot stage is much prolonged lasting from 6 to twelve hours, the sweating stage is not as developed and merges into the form of remission from which it is difficult to distinguish it.

The attack of remittent fever is said to be sudden sometimes, but is most commonly is preceded by symptoms such as chilliness lassitude, loss of appetite, nausea, &c.

The accute febrile paroxysm begins with a rigor or slight chilliness to which the hot stage very soon succeeds & ends in perspiration & remission after the hot stage ranging from two hours to twelve hours. The paroxysm usually increases in severity day by day for a few days. The symptoms which the patient presents, are very much like those of intermittent fever but some of them are much more severe.

The temperature is also higher but it does not fall during the remission to the normal standard; there seems to be no difference as regards the pulse and respirations; except perhaps with the progress of the disease the pulse may become a little quicker and more.

[illegible]

the hot stage of remittent fever than in the corresponding period of intermittent fever, becoming sometimes very distressing and may be attended with hæmatemesis (Black vomit): the tongue is dark, yellowish, slight jaundice and aching pain in the limbs more intense. Confusion of intellect drowsiness, delirium & coma are not unfrequent. When such symptoms appear the patient often passes into what is known as the Typhoid State.

The effects of the ague poison are not always as described above; for sometimes the paroxysm has been so violent as to produce death. But this is rather un[illegible] [illegible] more frequently [illegible] by [illegible] attacks.

it is known as Pernicious fever; or as congestive fever or Congestive Chill.

The spleen is invariably enlarged during the paroxysms & especially during the cold stage and may generally be easily recognized by palpation & percussion. It subsides during the intermittent period & may return to its normal size. But if the ague continues the splenic tumor becomes more or less permanent & we have what is known as the Ague Cake.

The duration of ague presents great differences. One attack will probably or may subside (unless death supervenes) if the patient be removed from the district in which he contracted it.

But it is rarely fatal.

If ague a[illegible]

and especially if the patient has been long resident in a malarious climate, or has had periodical attacks for many years, it is said organic changes take place in the liver & spleen, their functions being impaired by chronic conditions of disease becoming developed. Among the more important of these Cachexia of ague.

In many cases the patient simply passes into a condition of debility and anaemia and in severe cases jaundice associated with it, or general dropsy may come on after a time.

It is said the malarious poison may exist in the system and cause visceral lesions without announcing its presence by the febrile symptoms.

and it's said morbid anatomy throws little light on it. We know a poison is taken into the system (many claim that it is a living thing) and that this remains for an indefinite period giving rise at irregular intervals to more or less distinctly periodical attacks of well marked fever attended with rapid waste of tissue, high temperature, and congestion of internal organs more especially the spleen. But where the poison lives, or why it acts as it does, and on what organs it acts is not yet positively known.

The most constant lesion perceptible after death is the enlargement of the spleen.

Enlargement and induration of the spleen and liver are among the common results of long continued or repeated attacks of

[illegible]

Treatment = The prophylactic is of great value when it can be practised or applied, but the remedial is sufficient without [illegible] as to render such treatment nearly impossible to be applied.

Among some of the most important means of such treatment are remaining in the house early mornings and late evenings, sleeping in the upper rooms of the house, drinking of boiled water, [illegible]ing and taking 3 or 4 grains of Quinine or some of the preparations of Cinchona.

In treating ague medicinally, we have to treat first the paroxysm, and next the disease. The patient will be benefited during the cold stage by applying of warmth, such as warm bottles [illegible]

[illegible] or is not generally adopted by all [illegible] [illegible] [illegible], [illegible] prefering to give it just before the paroxysm, [illegible] just after it and during the sweating stage, the object being prevention.

The method which is most frequently pursued is that of giving the Quinine in small doses 5 to 10 grains three or four times a day without reference to the occurrence of paroxysms.

Treatment for a mild attack of intermittent. Give the patient the overnight Calomel 5 to 8 grains, Rhubarb 5 ~~[illegible]~~ to 8 grains, next morning give a mild Cathartic such as Eps. Salts or Castor Oil, and commence the use of Sulphate of Quinine at once giving from 5 to 10 grains in a dose [illegible] [illegible] [illegible] the paroxysms disappear.

Therefore [illegible] the patient [illegible] from the self nervous than he can possibly [illegible] at the [illegible] beginning of the attack. And to continue the use of Quinine for several months, in moderate doses from 5 to 10 grains a day.

The treatment in the pernicious or Congestive form of the disease must be prompt & energetic to be of any avail. During the paroxysm this will of course vary with the nature of the symptoms. Quinine & Opium being the most important remedies, & positive stimulants should be resorted to [illegible].

Quinine should be given in very large doses from 40 to 60 grains, until the patient is fully Cinchonized.

Written by

J. H. Williams of Maryland

Student of Medicine at the Univer[illegible]
of Maryland Session [illegible]

Typhoid Fever.

Synonyms.— Enteric fever; Abdominal typhus; Pythogenic fever of Murchison.

Etiology.— Some room for doubt exists in regard to the cause of this disease. It is a subject which has given rise to some controversy among men of the medical profession. Some writers have described what they regard as specific "typhoid bacilli" but it remains to be proved that they are the actual contagium. Some say the toxic element is due to a process of fermentation in the faecal matter which accumulates in the lowest end of the small intestine, behind the ileo-caecal valve. Whether there is any "specific element" or not is a question which, I think, remains for the future to decide. Although I am not clear what the actual cause is

The fever is continued, lasting from three to four weeks, rarely longer than thirty days. Recrudescence [illegible] and relapse not uncommon.

Prognosis.— There are many things which have a practical bearing in regard to the prognosis of this disease. The hygienic surroundings must be taken into consideration as it is well known these may have a favorable or unfavorable influence. The [illegible] the [illegible] the more [illegible] the prognosis, [illegible] [illegible] [illegible] [illegible] it must be remembered that the possibility of intestinal perforation exists an element of danger in all cases therefore a guarded prognosis should be given in every case. Any marked irregularity of temperature

water which is used for drinking purposes or they may, through this medium, be carried back to the patient again and become a source of trouble. In this way other members of the family may be infected. Much comfort may be given by sponging the patient; in doing this only a part of the patient's body should be exposed at one time. Frequent sponging or bathing the patient's skin, [illegible] and make the patient feel more comfortable.

Some practitioners have adopted what they call "Special Treatment". For example they use antiseptic agents, including all the remedies. Carbolic acid, Salicylic acid &c. are used, sometimes they destroy the [illegible] organisms which give rise to the disease.

"Abortive treatment" is [illegible] of Specific treatment; [illegible] [illegible] [illegible] means [illegible].

"This has been practiced quite extensively in Germany."

"Eliminative treatment" is practiced by some with a view of getting the elimination of the [illegible] poison, instead of [illegible] the discharge, they favor it by [illegible] drinks.

The danger of this practice is [illegible].

The treatment, which I have here laid down [illegible] will be sufficient, I think, in all ordinary cases. Where complications occur the treatment must be modified according to the indications of each individual case.

Respectfully,

J. [illegible] [illegible]s.

Posterior Spinal Sclerosis

by

Joseph Plum

=1885=

Although the field from which to select a subject for a thesis is a large and unlimited one for a student of medicine, it is none the less difficult to make a satisfactory selection.

After no small amount of deliberation Posterior Spinal Sclerosis was determined upon, the subject suggested itself through the fact of having been assistant to Prof. C. K. Mills in the Out-patient department of the University Hospital, where I engaged the [illegible] of studying and observing this disease of the Nervous System under the guidance and instruction of the above learned gentleman and his assistant Dr. C. W. [illegible].

Posterior - Spinal - Sclerosis

This disease was first mentioned by Duchenne in 1858 and described by the same as a disease of the nervous system, manifesting itself principally by disordered movements of the limbs in locomotion, without loss of muscular strength, and loss of muscular tone.

The term "Tabes Dorsalis" seems to have been erroneously applied to this disease due to an idea that sexual abuses, or excesses, are the originators of its cause; this however is denied by a great many authors.

Rheumatism, as well as hereditary predisposition were also frequently looked upon as possible causes of Posterior Spinal Sclerosis; this again was denied by good authorities.

If the disease should develop through the first medium (Rheumatism) the question would instinctively arise: Why is Posterior Spinal Sclerosis of such seldom occurrence in comparison with the prevalence of Rheumatism?

Syphilis is considered by many authors as the true etiology of this affection.

The lesions of this disease have been definitely located in the posterior columns of the spinal cord and the posterior roots of the

spinal nerves, the matter (neuroglia) becoming indurated and sclerotic hence the name "Posterior Spinal Sclerosis" causing the loss of muscular sense but not of the muscular strength.

The lower dorsal and lumbar regions are most usually the affected parts, causing the lower limbs to be affected.

If the trouble is in the cervical region the upper limbs will be likewise affected.

The premonitory symptoms, i.e. symptoms preceding the ataxic movements of the limbs are as follows: disorders of sensation, shooting and darting pains, burning

The patient finds difficulty in standing or walking owing to the in-co-ordination of the muscles; the patient requiring the use of his eyes to measure and guide his step so as to preserve his equilibrium.

When in the erect position (standing with the feet in close apposition) and the eyes closed it would cause him to be precipitated to the ground.

The symptom as follows, demonstrating in the Laboratories for the instruction of the student is often looked upon by the same as an unwilling on the part of the patient; but is readily attributed to the lack of will influence over the co-ordinating power of the

muscles. The patient is told to close his eyes tightly, and then attempt to open his lids preparatory in observing. These attempts will be an utter failure; whereas a person in normal health and condition is unable at the first attempt to perform this similar feat until his muscles are trained to perform the same.

In enumerating the symptoms and signs I almost omitted to mention a very important symptom viz: the tendon reflex is wanting.

This disease should never be confounded with Chorea, or Paralysis and with little care it can be avoided. The differential diagnosis is the following: In Chorea the upper

beneficial results have been good in this country from such treatment.

The remedies mostly the most adopted in practice in this country are the following: Iodide Potassium and the Bichloride of Mercury. they rarely cure the disease although they have some influence if the administration be correct and judicious.

Of late the Fluid Extract of Ergot (Secale Cornutum) has become prominent in the category of remedial agents used in the treatment of this disease. Its good effects are doubtful although such an eminent authority as

which have generally been adopted, but with varying success and we can look upon none of them as absolutely curative.

But the science of Medicine is progressive, and keeping pace with the advance made in all other departments of science.

Within the present century the physical diagnosis of disease has been facilitated to an extent far beyond what the most sanguine physician of the last century could have deemed possible; by the introduction of the stethoscope and speculum, Anaesthetics such as the Muriate of Cocaine etc, and our

Materia Medica has received a large number of additions that are of the greatest importance.

Two discoveries alone have changed the whole face of Medicine giving it a degree of certainty which at no time enjoyed before. I refer to Laennec of Auscultatory fame and that of Bright whose long series of disease of the kidney bear his name.

In the light of these discoveries and the advances made within the last century, we are encouraged to hope that numerous other possibilities which sooner or later will be developed are a more

perfect knowledge of the etiology of this disease, and its efficient remedy.

In the present state of our knowledge we are forced to content ourselves with palliative measures, meeting so far as possible the symptoms as they arise.

Mindful of the injustice which this brief discussion of so important a subject must have done it, I most respectfully submit this thesis to the Faculty of the University of Maryland.

Joseph Shaw

(Pettersons Maryland)

Ohi

discussing this subject perhaps it would not be [illegible] to make a short digression at the beginning. We are taught in the Book of Books that there was a time when the Earth knew no sin and, its inevitable sequence, pain; but all was joy, all was beauty, all was lovely innocency. The lion lay down with the lamb and the elements themselves were harmless. There was no fear as there was no need for fear. There was no punishment as there was no need for punishment. There were no doctors as there was no need for doctors. But in an evil moment man sinned, and the whole condition

of things was immediately changed.
Pandora['s] box was opened, all the
evils let loose. There was envy, hatred,
anger, murder, falsehood, iniquity
of every shape and to make things worse,
every vice had its punishment, and
though sometimes none, it was al-
ways great when inflicted by the
dread [illegible], thin, worn, & de-
crepit - deformed, could be heard at
the dead hour of night, groaning, mourn-
ing the past, and dreading the
future. There was fear, dodging
and quivering, fainting at the sight
of his own shadow. There was revenge
forever seeking to punish those
who had wronged him. There was
Anger, [illegible] bellows of revenge

hatred and animosity, integral at the most flippant demonstration of real insult or unkindness. There was every crime that human ingenuity could device or the power of evil contrive, and last and always, but by no means the least, was pain. It followed in the foot steps of all the other evils, faithfully and constantly. Man's condition indeed was bad, he was ignorant of the laws of nature and regardless of the mandates of his Creator. His fallen nature had brought upon him countless woes. None of which he knows how to controle, none to alleviate,

[illegible] be done. Something had
to be done. Some remedy must
be discovered. Different things were
resorted to. He invoked the tender
mercies of his gods, he chanted
strange orisons to the evening
stars. In his misery and woe
he would wander away into
sylvian groves and seek the
society of Nymphes and Satyrs
whose wild incantation he sup-
posed would drive away pain
and sorrow. He would invoke
the agency or reluctant Nymphs,
but alas too frequently in vain,
whose smiles when they were grant-
ed, often soothed but to deceive.
As I have said various means

were tried to relieve the suffer-
ing of mankind; but as has often
happened in more modern days
the remedy was frequently worse
than the disease. After many
centuries had elapsed some
one discovered that a certain plant
when eaten or chewed would give
great relief. This must have
been found out by noticing
that domestic animals when
sick would often eat it and be
relieved. This wonderful plant
was the Papaver Somniferum
or Poppy. At what time it was
discovered or used in medicine
we are unable to say, though it
must have been in a very remote

[illegible] morning they [illegible]
[illegible]
put it up with saliva, and
press it into globules weighing
a pound or so, then cover it with
leaves, then it is ready for ship-
ment. The Greeks called the Opium
obtained in this way ΟΠΟΙΝ
while that obtained by inspis-
sating the capsules in water
μ'ηκῶνιν. The varieties known
to commerce are the Smyrna, Con-
stantinople, Egyptian and Persian.
Vast quantities are produced in
the various provinces of Eastern
Asia, but are not much used in
this country. Various attempts
have been made in the U.S. to grow it,

as an article of commerce, but have usually failed. During the late war between the United States and the Confederate States it was extensively grown by the latter countries when the new republic was so shut off from the outside world that its foreign supply was not adequate to the demand for domestic use. Since 1865 its cultivation in the South has been neglected and is now only to be found in the flower gardens. Considering its present cheapness and the liability to its inordinate use if extensively cultivated in this country all attempts at its cultivation here should cease

Our people are very abt students and no one knows but that the cultivation of Opium in this country might after a while effect it ruin Opium contains various alkaloids. Some of the most important being. Morphia, Codeina, Narcenia and Narcotina. Morphia, the one mostly used, is prepared by mascerating Opium in water for several times. By this means it is separated from the other elements or ingretients in the form of a meconate. To this solution containing this salt a mixture of alcohol and aqual ammonia is added, the latter precipitating

the Morphia, while the alcohol seizes the meconic acid and other coloring matters. The liquid is now filtred and the crystals of morphia are treated with boiling alcohol and filtred through animal charcoal. Morphia is a white crystaline substance, very bitter very soluable in acetic aether, but much less so in water, alcohol or chloroform. The most popular and at the same time one of the best preparations of Opium is the tr. Opii or Laudanum. It is made by digesting ten parts Opium in one hundred parts dilute alcohol for two weeks, then filtering. It should be kept in air tight bottle

Dose twenty five drops. By breaking the Opium into a mass with hot water, you may get the full strength by macerating for 24 hours but the better plan is to use the suggestion made above. The Tr. Opii. Camph.

℞ P. Opii ——— gr xxxv
Acid Benz. — — — gr xxxv
Ol. Anisi. — — — ʒ ss
Camphorae gr xxxv
Glycerinae ʒ v.
Alcohol Dilut. ad ℥ xx

This is an old valuable Secund. Arte preparation used to alay cough, to check pain or produce gentle diaphoresis. There are other liquids preparations as Tr. Opii. Deod. Tr. Opii Ammoniate Bateman's Drops. Godfrey Cordial etc.

which are extensively used, the best solid preparation that I know of is the Dover's Powders, or Pulvis Ipecac et Opii is made by the following

℞ Pulv. Ipecac (No 60)
Pulv. Opii — aa ℥i
Sach. Lactis — ℥i M

When a good sized dose of Opium has been taken, you feel a sence of intoxication, then in a short time you leave the world and all things material to tend to their own affairs while you wander off in fairy dreamland, and in one hour pass an eternity of unallied bliss. You wander among fields Elysian, you dwell in palaces which far out shine the wealth

of Carrion or of [illegible]" On eagle's [illegible]
far, you soar aloft and talk
familiar with Suns, [illegible] and [illegible]
The poor old world may wiggle
as she will, you will be happy
as a clam in high water, or a young
Dr. with his first patient.
Opium is the great pain destroyer.
It seems to have some influence
in checking inflammatory process
es in checking peristalsis and in
promoting certain secretions.
You may use it in all diseases
in which you may find these
indications. A good and at
the same time a very practible
test for Opium in solution is
a few drops of tincture of the

(a broth of iron which will turn the solution red. Another good one is Nitric Acid. this turns Morphia red, which gradually becomes yellow. You may add a solution supposed to contain Morphia a little Ammonia, then to ferri chloride, and if Morphia is present the solution will be colored blue. In a very few cases, Opium instead of inducing sleep and checking pain has been known to produce and insomnia. Treatment of Opium poisoning. Evacuate the stomach by the use of Mustard, Zinc Sulphate, Sulphate of Copper or any other good emetic at hand. Keep the patient awake by the use of

Belladonna and strong coffee.
Make him walk about, sing, laugh, talk, or any thing else that will prevent him from going to sleep.
In this short paper I have tried to give a condensed description of Opium, its origin, history, preparations, physiological actions, chemical properties, uses, tests, and the treatment of Opium poisoning. I shall say nothing of that worst of all bad habits: the Opium eaters, but will close with hope that while you may judge this thesis with a critic eye, "you will pass its imperfections by".

D. H. Schaffner

— Thesis —

Ellis Eugene Rogers

Feb. 1st 1885 —

Examine

In writing a Thesis on so important a subject as the one which I have selected I fully appreciate my inability to handle it in any masterly style. As this is a subject which is of comparatively recent introduction in to the science of Medicine the observance of its laws having accomplished so much in the prevention and cure of disease it at once asserts itself as one of prime importance for the study of the Physician. On reviewing the subject as much as my mind would allow me I find of

Late years much has been written by eminent men in the profession. Medical men have finally awaked to the idea that it is not their duty to cure but to prevent disease, and the observance of the laws of hygiene has so verified the old adage that an ounce of prevention is worth a pound of cure. From the writings of many learned men we have in our consideration a world of ideas from which we may cull some valuable thoughts. But I can only hope to bring before you

some of the most magnificent limits which our limited mind as well as limited knowledge will allow. Could I write in that instructive technical, yet eloquent style in which some of the learned writers expatiate, touching fact about fact at you in language which impresses their vital importance, showing you how necessary that you should be acquainted with all the causes of disease and their action on the human organism I would feel that I was able to write a Thesis

worthy of being read by my learned professors into whose the weak and feeble student attempts to explain a subject of which he only has a knowledge of the grosser points, those points which to his teachers and practitioners are as familiar as a bad student on examination and when he sees the important responsibility which will rest upon him in the practice of those duties as dealing with human life, an immortal soul, the work of God. may! he may well shudder and shrink with fear from the execution of duties of which

he is not thoroughly familiar and in which he can not do justice to himself his patient and his God. On the study and practice of prophylactics we can only hope for success by enlisting the services of the people themselves in the continuous efforts of self-improvement. The people must realize that good conduct, personal cleanliness and the avoidance of all excesses are the first principles of health preservation, that mental and physical training must go hand in hand, and morality does not consist so much in the blind observance of empty creeds as in a healthy

submission to the precepts of health. Sanitary improvements in mans surroundings will not compensate for social transgressions against laws of morality; for public virtue is essential to public health, and both to national prosperity. On the other hand through the experimental physiological experiments and clinical observation can the profession hope to add new triumphs to those all ready gained. That a large number of diseases are caused by organisms peculiar to each special disease is now generally accepted, through the persistent labors of pathologists

in some cases it has been proved beyond doubt so our work is not that of a mere mathematical calculation out of theories which have been practically demonstrated. As the disease producing organisms with which we have to deal are mostly those of the entozoic variety, we are called upon to trace them from their introduction into the body till they have found their favorite position and tissues for reproduction, so we must be thoroughly acquainted with natures methods and natures laws, she presents to us in many a series of phenomina

which are truly wonderful, her works being nearest that of perfection though she has frequently erred in producing some of the most hideous monstrosities and malformations conceivable, yet we look to her bosom for the prevention as well as the cure of disease, and she responds with that motherly portion which has so often routed the drugs of ignorant doctors and restored her subjects to health. she has robed many germs of their deadly action by giving us through her inferior animals a medium by which we can ameliorate disease if not finally exterminate

it. Small pox furnishes us with a type which has been accompanied with the most astounding good results, and only in the last few months does Mr. Pasteur of Paris, say he has not only discovered but vaccinated with success for that horrible and terribly fatal disease Hydrophobia. With such facts as these and others too numerous to mention every one interested in the study of the science of medicine must be buoyant with hope and more than pleased with the progress of prophylactics. We have only to take a brief retrospective glance to place our profession

in the foremost ranks of modern science, only at the beginning of the American history was disease of the most loathsome character rife among our people, witchery, and the belief in the supernatural held full sway, and executions were daily taking place of those supposed to be possessed of evil spirits, or referring to the dark or middle ages of England's history, if the accounts are reliable that tell us of frequent visitations of plague, pestilence, and famine mixed also with stories strange and incredible, of armies fighting in the air, showers of blood, timely earthquake and the

like, all showing how deep-rooted was the belief in the supernatural as regards epidemic disease and its cause. If however we look at the habits of our forefathers, we have no difficulty in accounting for the fearful mortality which prevailed among them. Personal cleanliness was utterly neglected the diet was coarse and always highly seasoned, strong wines and ales was drunk early in the morning and often far into the night in short gluttony and intemperance were prominent characters of the people at this day. Or let us glance at those grand old Greeks who

have left us such a rich store of philosophy, literature, and art. But with all their wisdom and culture they knew very little of the cause of disease as it affects communities and they accepted the terrible epidemics with which they were visited as manifestations of offended deities. Their decline and fall as a nation was due to the luxury into which they lapsed and the immorality which ultimately became their ruin. Returning now to the fatal year of 1348 when the Black Death or Great mortality first appeared in England, it was an

eminently contagious disease so
when it first gained a footing
it spread with such terrible rapidity that in a few months almost
every town and village in all
England was attacked. In London alone 100.000 fell victims to
the disease and 50.000 corpses
were interred in one burial-ground
heaped together, layer upon
layer, in large pits. Throughout Europe it was estimated that
a tenth part of the entire population was swept away. Imagination fails to realize the misery
and horrors of this time. The sick
died unattended, charity was

dead and hope extinguished— every where there was error and blank despair. Add to this that there was constant fighting of some sort going on. Kings were warring against sovereigns' subjects of foreign foes. Cities and towns were walled-in fortresses, and the roads were beset with murderers and highwaymen. Dogberries watched the streets but did not guard them. Travelers starved, burglars were plentiful, and amongst all classes life was held very cheap. Those were days indeed in which Mr. Darwin's doctrine of survival of the fittest was

exemplified to the fullest extent; the weakly went to the wall, and left on the whole, only those of iron constitutions to perpetuate a brave, hardy and pushing race which very slowly increased in numbers. Without nothing other epidemics which continued to devastate. The century we pass on to the beginning of the seventeenth century when we find their place taken by smallpox, jail fever and scurvy and other diseases which still continued to cause excessive mortality. But we come now to the dawn of a better day, at the beginning of the eighteenth century

we find gradual improvement in agriculture manufactures and commerce adding stability to the comforts of the people. Food becoming more plentiful and the diet less coarse. Fresh meat taking the place of salted meat which had hitherto constituted such a large part of the people food. while tea and coffee are to a great extent replacing the strong ale and ardent spirits, which had formerly proved such a baneful source of disease. The people too are now beginning to recognise the value of cleanliness of person and home, soap and

soda having been introduced and came into general use. Thus we find that many terrible scourges have finally died away and their disappearance may be attributed in no small way to hygienic measures which naturally followed the onward progress of civilization. We now enter upon an era in which observation and induction begin to play a part in the formation of diseases when the physical causes of disease receive better appreciation, it is true the workers have been few, but the results of their labors have been fraught with untold blessings to humanity.

Foremost among these we find the honored names of Captain Cook, John Howard and the immortal Dr Jenner. Now let us glance briefly at the work which they have accomplished.

Captain Cooks name is associated with the suppression of that once prevalent disease scurvy, which up to the latter part of the eighteenth century deciminated our armies and fleets and often proved terribly fatal amongst our civil population, fostered, as many other diseases are by insanitory conditions but its real cause is a diet from which vegetables and fruits have

been included and it was renewed by Captain Cook in his voyage of discovery around the world from 1772 to 1775 to some degree a doubt that the disease could be banished from every ship's crew and that it could be entirely eradicated on land and sea to quote one instance in many, in Anson's famous expedition thirty years previous to that of Captain Cook, out of a total number of 900 hands 600 died before the expedition returned, and chiefly in the scurvy. During Captain Cook's three year voyage on the other hand, there were only four deaths, namely

three from accident and one from consumption out of a total number of 118 men; but the nation took years to learn the lesson which he taught, and many more lives had to be sacrificed before it became compulsory that lime-juice should form a part of the cargo of every sea-going vessel, and scurvy may now be reckoned among the diseases of the past. The next great reformer was John Howard his name is associated with the prevention of that once fatal disease then known as jail fever, and made several assizes memorable as the Black Assizes; the disease has long since been recognized

to be the same as Typhus fever and
John Howard died the life of an
apostle and died a martyr in
proving that it is a disease essential-
ly due to filth and overcrowding.
The next great sanitary triumph
of the eighteenth century calling for
special notice was the discovery of
vaccination, that most hideous and
terribly fatal disease small-pox
had long been a terror and scourge
to all classes of the community
here and abroad. The practice of
vaccination, Jenner's grand discov-
ery, was commenced in the year
1796 and although it was several
years before it became general in

vaccine as a preventive measure has not been in declaring itself in a steadily declining mortality. And if we still have recurrent outbreaks of the disease, it is because there are thousands of people living at the present day who have never been protected by vaccination. For it must be remembered that it was not till 1853 that vaccination was provided gratuitously and not till 1867 that it was made compulsory, we may therefore expect occasional outbreaks, though of constantly decreasing severity, for years to come but that the disease can and will be finally eradicated, the belief is

as deep-rooted in the minds of medical men and the educated public as it was in the stout brave heart of Edward Jenner.

Thus passing on to the present day we find that improvements in sanitary science have been marked by a phenominal success. our cities by enactments of laws have been provided as the best means known to science of removing filth, sewers have been constructed on the most scientific and economical principles, ventilators for the removal of vitiated air from the first consideration in the erection of all public buildings scavenging has been introduced as a

sporadic necessity all tending to reduce the mortality with the most gratifying good results. but the good work must not stop here the people themselves must more fully appreciate the importance of home and personal cleanliness it is obvious that no legal measure can be taken in this so we can only hope through our institutions of learning and encouragement of such as free schools to engender a higher grade of morality and intellectuality, and in such the efforts will naturally follow. So on the whole we may say we stand to day at the dawn of an extraordinary

age. Freed from the chains of ancient thought and superstition man has begun to win the most extraordinary victories in the domain of science, one by one he has dispelled the doubts of the ancient world and we now knock at the door of a new era which promises to be infinitely brighter and more enlightened and happier than the past, But with all our knowledge and learning, Though we have investigated the cause of disease to such an extent as in some instances to be able to point it out discover it and with the aid of our microscope to [illegible]

in it. But with all this blaze of light which illuminates the present not one step have we accomplished toward the solution of the mystery of life. That remains to day as dark and unfathomable as it was centuries ago, and our present knowledge dispels all hope of ever finding the fountain of life into which we may plunge and receive and investment of perpetual youth, we only know we are more fortunate than our fathers we believe the time to come will be more glorious than this, but behind that veil we can not penetrate, the age in which we live

is but a link in the eternal chain,
our lives are like the sound upon the
shore, our voices like the summer
breeze that stirs the leaf for a mo-
ment and is forgotten. Then what
is life?
'Tis a beautiful shell cast up by eter-
nities tide.
One moment to stand on Time's quiet
sand
And then all its loveliness flown —
One back to its element grand
is the billow that washed it ashore.
Behold! another is washing the
strand
And the beautiful shell is no more
But endless generations are drawn

cing to take our place, as we fall,
for them as far as we will science
advance, will disease and plague
be exterminated, will the comforts of
life be more perfected, will the seasons
come and go the snow flakes fall
the flowers bloom and the har-
vests be gathered, and the nobleness
of learning which have made us
happy, preserved by the virtue of
our children blessed the remotest
generations of time to come.

I am very Truly & Respt.
Chas. Eugene Pogue

Feb. 15th. 1885

An

Inaugural Dissertation

On

Our Profession

Submitted to the Examination

Of the

Provost Regent & Faculty of Physics

Of the

University of Maryland

For the Degree

Of

Doctor of Medicine

by

Geo. C. Richard.

Feb. 1885.

And now in the discharge of the custom and our Faculty alike impose upon me I trust I shall be pardoned especially in view of our surroundings if I shall forget the obstruse problem of science and confine myself to the concrete thought beautifully Expressed in the words Our Profession!

More than six thousand years ago by a single act of disobedience there came into our common race the elements of sorrow, confusion and Physical suffering.

The first seemed almost at once to move all heaven in pity. The second awakened in the mind of the Father a spirit of compassion but against Physical suffering and death there seemed to be no relenting spirit, and they are the common heritage of us all

In the order of the first we have according to the formal principles of Science grounding itself in the will of God, as Expressed in the Pentateuch and the Prophecies, and lastly in the person of Christ in the order of the second we have the formal principles of laws as Expressed in the Decalogue, and this is the basis of all true science in progress whether Political or judicial whether over and against Physical suffering and death we have no formal principle as Emanating from the divine will, here human nature is left to its own resources groaning & struggling with death & antecedents whilst not a ray of revealed light came to illuminate its path or cheer its gloomy prospects, now this thought is suggestive especially since in the progress of the leading professions a certain degree of contempt is sometimes expressed for that medicine because it has not as yet attained

to that degree of consciousness and authoritativeness its object would seem to call for.

But Professors of Medical Faculty of The University of Maryland is not a marvel rather that it shall have accomplished what it has, the contest historically between Theology and law on the one hand and medicine on the other has been most unequal, the formal principles of law and theology furnished for human minds from the very first step the elements of faith and personal ambition divine revelation and the testimony of good and representative men inspired of God confronted the human understanding and here pointed unmistakably in the direction of true progress, and yet so sluggish was the human understanding so obdurate and selfish the human heart and so slow was the human mind to apprehend that it was really good that one

even now sickens at the contemplation of the anarchy and confusion which for centuries characterized our race religiously and politically and shall we wonder therefore if it shall appear that the human mind left to its own resources in the solution of one of the darkest and most difficult problems for the race, a problem though destined in the end to contribute so wonderfully to human happiness and comfort should have been slow to move and equally slow to apprehend.

Our profession in the absence of a formal principle is there the outgrowth of human want and human necessity. Like science in any other form it is the expression of the human consciousness and starts in the human will.

The circumstances and conditions of our primitive race furnished neither the occasion

nor the necessity for progress in the sphere of medicine, the native habits of our Patriarchal sires, the simplicity of their modes of life, the pure and unadulterated air they breathed, & the virgin soil which produced almost spontaneously one of the necessary products of life, gave them comparative immunity from pain & Physical suffering, nor add to these the vigor & strength of a new race. The strong and well developed muscular powers of organism, as contrasted with the nervous which usually accompanied Civilization with Intellectual & social culture, and you have a solution at once not only of the problem of the wonderful age herein then attained but strong presumptive evidence also that their sufferings were comparatively trifling.

But after the lapse of time - progress & age the Physical began to yield to the Intellectual

and after the arts which at quite an early period seemed to have made considerable progress, had led the people into relation at once offensive and defensive in necessitating towns and cities, commerce and trade as well as agricultural and mechanical pursuits. Then only were the conditions for medical science at last developed.

But even now there was no possibility for real progress of science in any other form, for as the types and shadows of the old Testament dispensation were but the adumbrations of the fuller revelations of light and truth as should ultimately appear in the master stroke of creation, Exemplified to the world in the Incarnation of the son of God. so the human will and human consciousness were bound and fettered as by a cloud and there was no possibility for development of science in any true

form, the human mind it is true and as ever active and in Syria, Asia, Africa and everywhere do we trace its struggling in the direction of science, but the efforts of the best men as Dextrous as a Chisolm, a Howard, a Liffany or a Richard were like abortive, and like a ship without a compass or a craft without a helm, these apparently vast achievements led only in the sphere of disappointment

Wonderful indeed were their researches and their stores of useful facts, and discoveries may even now cause the world to look back in wonder and surprise, but the accumulation of facts and the discoveries even of great principles do not constitute a science, these facts must be brought into there proper relations, and principles must so stand in relation to facts as in the organic

world life stands to matter and then only can we have the Objective Expression of true science.

Facts are facts but principles are always Philosophical, and hence in order for the development of science in any true form it is not only necessary that they shall be a felt want or necessity but a divine consciousness also which shall so pervade the human will and so control it as that it shall stand normally both in its subjective relation to the race and its objective relation to the world around it. Now this divine consciousness is precisely what was wanting in the Ante-Christian period so far as scientific progress was concerned and just in so far as men were not led by the special hand of God. Superstition and a spirit of inquiry characterized every movement in the direction of

Science. This was especially so in all that related to our profession Medicine, and it was properly denominated the "healing art."

Gentlemen of Physics upto the Christian period therefore nothing grand, nothing permanent, nothing sublime characterized the progress of Medicine. I would not however speak contemptuously of the honest and self-sacrificing struggles of the noble and good men who in all that period labored heroically for the solution of this darkest and most difficult problem for the race, but drop a tear of sympathy rather on the consciousness that they were destined to disappointment and that all their expenditures of labor and talent had necessarily to return to them, like to the dove home again to the ark without a sprig or a leaf of real progress.

But erratic Gentlemen the incarnation of the son of God, by which the divine and human are were brought into their normal relation and this became at once the ground of a new life and light and true truth it became in the broadest sense free, and soon moves and works as by inspiration, faith is no longer the only objective expression of the soul, but a subjective element of the consciousness and hence as the mind awakens to a sense of its wants and necessities there is ever at hand also a ready movement toward the supply of such wants, here then is the ground of all science, here the element of our profession.

This more than eighteen hundred years ago that in one dark cloud which had been hanging with sad fatality

over every scientific movement of the race and was at last asunder in the person of him who; without ostentation could claim, "I am the light of the world." Here the formal of law and Theology found their Completion, and here in the person of the Nazarene, is at last also the formal principle of Our Profession.

Life is a principle. The phenomena of life antagonism as the leaven in a measure of meal, at first slowly but gradually permeates the whole and brings it under its control, so the divine human life of the son of God, permeates the race and in all its relations, Civil, Political and Scientific furnishes a solution for its highest Physical destiny. What an interesting theme would not history furnish us in illustration of this thought.

Contrasting especially our own beloved country and the Christian nations of Europe with the semi-barbarous and Oriental nations, who have fallen back in the march of time, its testimony is unmistakable and its record sublime.

I am not treating this subject historically however and I will wander on in the sphere of practical thought. A grain of Mustard seed which is indeed the least of all seeds when it is grown is the greatest of herbs and becometh a tree, so that the birds of the air can come and lodge in the branches thereof. The parable of which this is a partial recitation was designed to illustrate also the organic growth of all science and especially Our Profession as they come before us now in the light of this latest and new revelation made in the person of Christ

was not destined to work as by magic the curi-
ous and sublime results which are ultimately
to be actualized in the progress of history and
could not in the nature of the case spring
at once from the human will and conscious-
ness as by a flash. Toil incessant labor and
toil accompanied by the sweat of the brow
were the price which had for centuries.
even since the time of Christ has our
Profession, with this problem been strug-
gling for the emancipation of pain and
suffering and is now at last only beginning
to realize hope in the majestic step of its
own scientific progress, its conflicts and
achievements in the past and its relations to
the future are the thoughts which shall engage
our further attention, in every period of the

world the healing art was practically associated with present craft, superstition and jugglery, but for many centuries before the time of christ and from that time until it assumed the character of a positive science, there have been those who arose above the superstition of their age and as by inspiration have thought partly on Philosophical, and partly as the result of observation and Experience has given us wonderful results. to reduce the practice to an independent and redemptive basis. The Galaxy of noble and good men starting especially in the person of Hippocrates, more than four hundred years before christ, than Aristotle, and still later in the Alexandrian Schools noted for its Philosophy and advance in scientific thought which

it is said the library consisted of seven hundred thousand volumes. here men of learning and extensive culture were found but they were invariably in advance of their age and their influence upon the people strongly buried every appeal with the spirit of superstition was so inconsiderable as to allow of little progress and resulted very generally in an abandonment of the profession for a more enticing field of Philosophy and Ethics.

Even the testimony of Christianity has invested our profession with a sacredness almost divine and the living presence of such a man as St. Luke, the beloved Physician were utterly helpless in their age and generation to dispel the clouds of

arrogance and superstition which held the people in a thraldom terrible and severe, and this on for centuries longer in the blind stupidity and mysterious way, in that related to the healing of disease, together also with the civil and political revolution which for a long time seriously compromised social and scientific progress, furnished almost insuperable barrier against the development of legitimate medicine, such were some of the objective hinderance to the progress of Our Profession.

But the intricacy and wonderful mystery involved in the animal organic structure and the still more mysterious Phenomena of Physiological organic life, here is the subjective problem

before which the professional mind labored in patient and perplexing thought besides superstition and superstitious bigotry, the natural element of fallen man have until very recently seriously opposed the proper study of human body. a thorough knowledge of its parts, there relations, and functions, and its constituent elements, are so essential in order that any morbid change may be intellectually apprehended. in the acquisition of this knowledge the open mid-day hour rarely witness our achievements and no royal insignia crowned the midnight triumph of our noble martyrs to personal duty. who silently and alone in the face of groaning and shame, step by step have unraveled this cosmos of wonders. our triumph

however is now complete; man is to know anatomically as a friend to friend in the hour of trial, & understand that with the progress of Anatomy came also a more intelligent and rational complete version of surgery and the instinctive efforts of the race, as shown from the beginning, to relieve wounds, fractures and deformities have culminated in a science hard to comprehensive & which in its achievements has already put the startling and brilliant deeds of chivalry far into the shade.

In Materia Medica the research has been wonderful and its results in old, not a hillside or valley in the vast domain of this known world, not even the depths of the sea have escaped the dreary & vigilant step of the Scientist in his search after Nature

stores for the healing of disease, from the unceasing stream as it flows gently on the mountain side, from river and lake, and even from the bosom of the sea. This same spirit again and again returned heavily laden with natures stores for the relief of human suffering.

But still in another direction has our profession if I dare count myself in accomplishing much and made into a tributary for the relief of human suffering. The old and wild speculation of alchemy. The infatuation after the Philosophical Stones and the delusions of the elixir of life have all passed away. But that which was good and useful has passed over into natural Philosophy, Chemistry and Pharmacy, and these especially the last two have found under the fostering care of Medicine

a redemption grand and sublime. And now who shall estimate the results of these mediate and immediate to the human race, in the legitimate sphere of medical Chemistry alone the exhibition of talent and industry has been wonderful. not a rock or a metal and scarcely an object connected with the inorganic world has escaped the penetrating eye of these observers of Aesculapius, every where have they been at work, and not content with analysis of which organic and inorganic bodies alike have been reduced to there simple elements, as by a master stroke, second only to the works of Creation, produced Chemical compounds infinite in number and variety, and essential not only in the arts but grand in there relation to human life.

Chemistry, Botany, Geology, Min-

ecology and natural history though intimately
blended, may each be regarded as a science
in itself, and yet neither the one or the whole can
in any sense be said to have any true significance,
except in so far as they stand in organic relation
with the Cornerstone of all true science. Commission
here in this divine human element do they find
there proper meaning, and into them has it infused
largely of its own life, giving to them tone and
character, and further holding in check agai-
nst human passion every tendency to ration-
alistic materialism, as an element in society
and especially in its power and influence upon
municipal and social progress, its impressions are
more felt than appreciated, this is the result
largely of its peculiarly modest and unostentatious
spirit, a spirit which naturally follows the higher

In sad scenes of human suffering, ancient
to its daily experience and its richest triumphs, but in
the patient thought and majestic step of its daily
progress it is silently wielding a power
which like bread cast upon the waters must
ere long return laden with the elements of true
preferment. Whither shall we return in order that
we may not trace the elements of this sacred form.
to the arts, nay, university of Faculty of Physic
for this a keen eye and a handy work it is
supplying implements and instruments of exquisite
design by means of which it is rapidly
relieving many of the heretofore <u>hidden</u> myste-
ries of organic life and rendering practically
much which our fathers regarded as beyond
the possibility of human power, it leaves the
art also in every step of their progress.

contributing largely to the element of their success and infuses into them by means of its educational power, the proper condition for practical utility. Though our profession may not boast the honor of the invention of steam, who shall estimate the results of human life and confront its good and practical teachings on the subject of Hygiene, as it now stands related to mining, manufacturing and against the pestilential march of disease, now fear only the increase by reason of the accumulation of vegetable and animal debris both in land and water.

Our Profession stands to day with an open and opposing front regardless of personal life or comfort, though in this contest many a noble son falls hopelessly at his post offering his life as a sacrifice to his science,

no such sounds alarm me into trepidation, but onward and onward still I would pass ever faithful to the march cry of the profession doing good and being useful.

It has been objected that the principles of our profession are involved in doubt, that its highest achievements are largely conjecture and that nothing fixed or definite make its progress. to this we answer yes and we answer no, uncertainty does beset us on every hand. mysterious. dark and impenetrable scenes. certainly lie in our path and much very much especially in Pathology and Physiology awaits solution. man is fearfully and wonderfully made and no one understands it better than they who seek to unravel this wonder of wonders.

and comprehend the phenomena of morbid as well as healthful life forces. Life itself is a mystery its very existence is unnatural its phenomena modified and controlled by the opposing elements of a diseased nature, conspire on every hand to the ends of death poison it is the most subtle point of objective expression so that in its very nature it is a contradiction. Who shall comprehend it, the principle of life so far as understand is good and lies in the divine will, but its manifestation has destroyed complicated and controlled, is the difficult but genuine problem with which our profession is concerned, as little as it is possible for us to understand the principles of life so little is it also in our power to comprehend

the principles of its antagonistic disease. both lie behind their manifestation and do not come within the arena of human knowledge and in relation to these all speculations and theories though carried to the utmost point of human reason, remain but speculations and theories, as the mind looks out into the infinite and is lost, absolutely lost in immensity so the human understanding falls helplessly in confusion in any attempt to solve that which God has reserved to himself, here confusion and uncertainty do confront us at every start and there is no humiliation in frankly confessing the difficulties before us.

We must not however mistake the object and nature of Our Profession,

it does not propose to take the place of nature nor can it in any sense change the constitution of a diseased race, but in the ever increasing conflicts between the healthful phenomena of organic life and the antagonistic elements of disease, it stands as a faithful sentinel ready to interrogate the one and confront the other, and here with principles well defined and a science clear and definite, its achievements are glorious and sublime, the researches which now and for the last few decades have been made in Physiology alone crown the profession with honor more lasting than royal insignia and illuminate its path the halo of a true light. The master strides in the study of Pathology and Pathological anatomy

have already brought the hitherto dark & uncertain nature of disease to act largely within the power of demonstrations and open the way for rational & intelligent treatment, in the light of these we confront the phenomena of morbid forces commensurate almost with the healthful forces of life action & in the presence of these Empiricism & all forms of specifics and powers which claim to accomplish their results simply because they are competent fall to a level with the dogs, while science standing in the relation of a means to the end moves in order of grand principles, the time was when our profession was properly called the healing art. disease was then understood only in its effects & the physician cured

but give it a name, his professional triumphs were already complete, so with true artistic skill he laid hold for its summary education, with him it matters little whether his salve was in the form of a black cat (as with Chinaman to day) or a pill of infuriating nonsense, or like our fathers studying Cholera Mixture of 28½ ingredients which according to the Doctors own act "was a sort of Compound".

"To day Dean Tiffany advocates hasty conclusions are unsatisfactory not only in its effects but in its nature and character in disease, while the remote predisposing and exciting causes are sought for with purpose now no narrow contractile notion determine.

to hasty the decision, but in the light of Physiological as well as Pathological law and force, of which no intelligent Physician need be ignorant to day.

Our Profession stands comparatively master of its solution and with a precision which is wonderful reads and interprets the maladies of human life, the martial glory of the battle field or the "Coup detat" of the rostrum and bar, before which men bow in admiration and awe, bear no comparison to the patient toil of the wonderful self denial and glorious achievements which characterized the labors of our Profession to-day, no martial music heralds our triumph, but the music of discordant sounds incident to the functional

and organic disease of the heart and to the lungs and respiratory organs in general arouses the man of our profession to prompt and decisive action and the precision with which he renders every to its real and proximate cause and is only regulated by the stores of therapeutical facts which determine his decision.

What does the world know and what can it know of our toils and our triumphs here patiently and gently in the dreary and dismal retreats from the dead house, earnestly and practically at the bed side of the suffering and the dying all alone, whilst all the world else wrapped in slumber and repose; are those facts analyzed and the principles developed which involve the happiness of the race and leads from

death to life, from the science of Medicine furnishes the process of inoculation & vaccination through the medium of sound furnishes no uncertain data but reaches the understanding with an impression clear and distinct, as the object of sight it may be fairly said that from this department of our science alone more has been accomplished in the last ten decades for the saving of human life than has been accomplished in the sphere of death by all the machination of war and civil destruction.

In every city and town in every hamlet and village, and dotted here and there over the country everywhere are the vayors of our Profession, who with a devotion unequalled by the Ministers of the

past are here accomplishing wonders in behalf of our race, the practical use and adaptation of the Microscope, not only in the study of the ultimate form of life structure, elucidating the development of cells, fibers and tubules, which lie far beyond the power of human sight, but also in the study of morbid organic growth, morbid deposits and various other morbid changes which are constantly occurring in the organs and tissues of the body. This is another of the triumphs of our Profession in this age. The world may know it or knowing may ever reluctantly accredit as has usually been its custom, to often it is true the functions and powers of our Profession are over estim-

ated but too often also achievements glorious and sublime never reach the portals of common renown and are buried in the annals of our science. to the man of our profession who boldly and successfully grapples with disease as it confronts the world in sorrows. as may be accredit at last very good luck if not a measurable degree of skill

But of the daily and hourly watching and honest devotion to those who are hanging unconsciously over the portals of dissolution the world can hardly judge. just here in these vast diseases, such as the organic diseases of the Kidney and there relations to brain softning, brain congestion or albumin-

-urea as it foreshadows the terrible scenes of Child bed convulsions, yea in a thousand other unthought of and unfelt dangers constantly threatening the hope of youth, the glory of age and the peace and happiness of homes, does our profession with the Microscope in one hand and the testtube and spirit lamp in the other, stand with a God-like heroism for the development of men and yet the world may never know it. The science of Pathological analysis on the living body by means of Symptomatology or Inferential and detective diagnosis is a-nother of the triumphs of our Profession.

In the study of Pathology and Physiology the true Physician takes in almost at a glance the intricate mysteries

the incomprehensible. Therefore is it, most of all, with a knowledge almost to a little prepares against the dangers awaiting his patient, here he stands like a sentinel at his post; amidst consequences so surpassing in importance, honor, wealth or station await his skill, he falters not amid tears and agonies of weeping friends, he patiently watches the conflicts between science and disease.

Our Profession may be justly proud of its advanced science in the diagnosis and treatment of diseases peculiar to Females though this has not at the present assumed the character of a Specialty, it is wonderful to see how rapidly the profession is awakening to a sense of its relative importance,

almost instinctively does the mind revert
to a description of the ills and physical wrongs
against mental and moral agencies which
make the lives of many of the fairest
daughters of Eve a burden to themselves
and their friends and disqualify them physic-
ally and psychologically for the high and
noble duties for which God and nature
alike design them; but we may only
add that if there is any one advance
in our science to-day, which may more
than another lead in contributing the
gratitudes of kind parents, a true husband
or a suffering weeping wife it lies in
the sphere of Gynaecology.

In the light of what has
been accomplished up to the present in the

hour must come when all theories shall have resolved themselves into facts, or when all principles shall no longer be in doubt or uncertainty, but when the nature and character of disease action shall lead to interpretation infallible, almost as truthfully, as the auxiliaries to science the spectrum, the microscope, the Laryngoscope. Of the more recent, or very unrelated principles of Thermometology promise much for the future glory of our profession.

Then brother gentlemen of the Faculty of Physics in the University of Maryland, in the epidemic, the nature and character of the work in which you are engaged, and I hope I may be able to be numbered with the healers of disease after passing through the so called (Green rooms)

Trial

[illegible]

this fermentation are called [illegible] liquors, [illegible] of [illegible] kinds.

Thus: The fermented juice of the grape is called [illegible] fermented infusion of [illegible] beer, &c.

With regard to the nature of liquids susceptible to various fermentation, however various they may be in other respects, the general character [illegible]; that namely of containing [illegible] in some form or other [illegible] the process of the [illegible] fation, the sugar is converted

[illegible]

The second step in the produc-
tion of alcohol is the distillation
of the various liquors which are
in the different ardent spirits
of commerce.
By subjecting ardent spirits
to distillation or rectification we
it is sometimes called we
obtain alcohol combined with
a certain amount of water.
The purity of the alcohol depend-
ing upon the extent to which
rectification has been carried,
alcohol being the term in
a general sense is a colorless
transparent volatile liquid,

[illegible]
as the vegeto alkalies remain
[illegible]
bodies
Hence its great use and demand
of the older chemical investiga-
tions and pharmacy
As acid, Bucholz considers the
acetic acid from a medicinal
standpoint
It is a stimulant [illegible]
and as [illegible]
[illegible]
[illegible]
the blood and [illegible]
The greater part of that taken
into the stomach passes [illegible]

the blood from this organ not reaching the substance at all.

Taken [illegible] in small quantities & not too often repeated, it becomes [illegible] [illegible] converted, with [illegible] [illegible] [illegible] [illegible]. Many drops of [illegible] [illegible] nature and [illegible] a certain amount of blood to go there than it otherwise would. It increases the [illegible] of the stomach & sense of warmth followed by a general glow of the body.

By increasing the blood supply

The most common effect is chronic inflammation of the stomach. The mucous follicles undergo a peculiar hardening [illegible] ulcerations [illegible] [illegible] [illegible] [illegible] hypertrophy [illegible] [illegible], and [illegible] [illegible] [illegible], [illegible] which seriously interferes the digestive process.
The liver becomes affected. Alcohol after it leaves the stomach is consequently the next organ to be affected.
Frequent stimulation [illegible] [illegible] [illegible] [illegible] and lack of the proper [illegible]

habitual use of alcohol has a
disastrous effect, producing three
fourths of the cases of [illegible]
[illegible]
Excessive or habitual use also produces
very marked effects on the nervous
system, one of the most common
of which is Delirium Tremens
Besides this it causes Neuralgia
Epilepsy, Insanity and less
serious troubles, such as lessened
mental power, muscular
twitching, trembling, [illegible]
&c.

Having considered a few of the
most important physiological
effects of alcoholic use we will now

[illegible] the condition of the blood
& consequently of the patient.
But while it is beneficial if properly used, it is undoubtedly often harmful by many disordering the stomach & causing dyspepsia.
Thus the condition of things [illegible] it is indicated & where it may render worse.
In inflammatory states such as Pleurisy Pneumonia &c should not be given when the pulse runs high heart is weak & tongue is brown and dry.
It possesses the power of lowering abnormally high temperature but not [illegible] [illegible] [illegible]

antiseptic dressing for wounds —
But, whilst the use of alcohol at the
right time and in proper amounts,
is so potent for good, its misuse
[illegible] as a dangerous [illegible]
a pestilence, [illegible], and which
is the cause of more misery and
has destroyed more lives, than
other pestilence or war.
In [illegible] comparing the good it
has done with the evil of which
it has been the author we are
forced to the conclusion that upon
the whole it would be better for
the cause of civilization if it were
totally and permanently lost.

[illegible]

Diabetes comes from two words
Dia "through" and "Baino" "to pass"
A disease which is characterized by
great augmentation and often
manifest alteration in the se-
cretion of urine, with excess of
thirst and progressive emacia-
tion. Cullen has described two
species, Diabetes insipidus and
Diabetes mellitus - the latter is
the one in which we will
base our thesis on,
although we are aware
much has been written on
the subject without giving
us any correct history of its
origin and treatment yet

[illegible] of diabetes mellitus ought
to be [illegible]. [illegible]
[illegible] any cause or rather the
cause of this disease is unknown
and must be left for others
to investigate. [illegible] to the
diagnosis of this disease, and
endeavor to give some of
[illegible] [illegible] [illegible]
experiments with the liver as the
producing sugar gland. [illegible]
says it is a remark [illegible]
[illegible] that when an acute
disease supervenes in diabetes
sugar no longer appears in the
urine so that one might
suppose the patient was cured

[illegible] of [illegible] both [illegible] the
cause of diabetes [illegible] some
some chemical change in the
blood. But he says the science
and art of medicine are indebted
for the more precise knowledge
now existing regarding the disease
to the researches of that eminent
physiologist whose name is so
closely linked with it; that
Claude Bernard done nothing
more than upset the chemical
theories of diabetes he would
have rendered an immense and
never to be forgotten service to
medicine. It was argued by
some that the [illegible]. [illegible]

of the vena cava of the right auricle of the heart and of the pulmonary artery contained sugar in quantities progressively diminishing with increase of distance from the liver. The researches and experiments are certainly very remarkable. Sugar has been found in the blood leading to the lungs but after it has traversed these organs the same sugar can not be found. This Claude Bernard has found after killing an animal several hours after he had been fed. What has become of the sugar? Well Previously many theories have been

[illegible] the [illegible] [illegible] from it
Further that the sugar and alimen-
tary glucose are destroyed by the
liver are therein transformed into glycogen emulsive substance
this of importance to be remembered
for it will guide us in our
treatment. Now like all other
organs and glands the liver is
under the dominion of the nervous
system. And as Prof Miles has
often pointed out and and
invariably shown us that if we
act on the nerves of a certain function
we may stimulate diminish or
even annihilate entirely the function
with the performance of which
it is charged. It has been

found by Claude Bernard if
you prick the medulla oblongata
of an herbivorous or carnivorous
animal in a certain situation
within the fourth ventricle that
sometime sugar will exist in
large quantities through the body
and also in the urine. The irritation
excited by pricking the [illegible]
tion is transmitted to the [illegible]
the spinal cord and the branches
of the great sympathetic which pre-
side over the function of the liver.
The excretion of sugar is augmented
and the blood saturated with it
carries it to the lungs in large
quantity that heat passes through

them without being destroyed and reaches the general circulation unless it is eliminated by the stomach. And eliminated to a still greater extent by the kidneys which accounts for its presence in the urine. And on the other hand if we divide the spinal cord above the origin of the branches of the great sympathetic which go to the liver the secretion of sugar is arrested. A beautiful experiment was made by a very eminent German physiologist Schiff for the purpose of examining and testing the experiments and conclusions of Claude Bernard. From these [illegible] on the question, demonstrated that excess of sugar in the

in the nervous system which gives rise to glycosuria? According to Schiff this irritation irritates the vasomotor nerves of the liver which causes dilatation of the vessels of the same; and as a primary consequence hyperaemia, and as a secondary consequence glycosuria. This is in accord with Claude Bernard's theory as to the regulating influence which he attributes to the great sympathetic. This he called the irritative glycosuria. Trousseau says that it is of importance to remember the fact that diabetes mellitus must be considered as a disease but as a symptom. Just as albuminuria may be either the consequence of that kind of nephritis

which is called albuminuria. Albuminuria may occur in disease of the liver, pancreas, lungs, spinal marrow, or great sympathetic nerve. With the above history and test tube experiments we must go on to the clinical history, diagnosis, prognosis, and treatment.

Clinical History. The three leading symptoms of Diabetes mellitus are ÷ inordinate thirst and augmented urinary secretion. In general the first with which one is the most conscious is unquenchable thirst, which torments the individual. Sometimes it is the only symptom of which they complain and for which they apply to the physician

the body. Its importance is as great and as universally recognised. Though it is almost the rule that diabetes thirst is immediately suggested to the physician who is consulted and the same very often occurs to the patients themselves when it becomes seriously alarming. It frightens them still more if the unquenchable thirst lasts, as it generally is coincident with some frequent micturition and with the increased quantity of urine. The increase in the quantity of urine is generally very great and sometimes enormous. It may amount to thirty pints or more in a day. The specific gravity varies between 1030 & 1050 the latter being an extreme

of increased density. The reaction is generally acid but may be alkaline in rare cases. The action of sugar on the urethra is apt to occasion a sense of heat and stinging pains and if a patient should complain of an itching sensation in the middle of the penis, if there is no increase of urine no thirst and no symptoms of any disease except that just mentioned we should examine for sugar in the urine and at once. It is evident that certain alimentary principles wich in health contribute to the growth and repair of the body are lost to nutrition in this disease; emaciation is usually marked, although increased appetite

is scarcely a prominent symptom. If not complicated the respiratory function is not disordered. The temperature of the body is normal. The skin is usually dry and rough. Bright's disease is an occasional complication. Troubles of the vision are not very infrequent and they sometimes occur early. In the majority of cases in which the vision is affected the defect is slight. The march of the disease is generally slow. Although there is no sugar in the saliva diabetic patients often complain of always having a sweet taste in the mouth.

Diagnosis. It must be remembered that that sugar is found in the urine in many of the various maladies

acid [illegible] one gr. of sugar. In the test and is sufficiently [illegible] in the [illegible]. This test is made by adding sulphate of copper in solution to a solution of neutral tartrate of potash and mix to this add a solution of caustic soda. It is necessary to boil the mixture then add the urine drop by drop in ordinary diabetic urine the first few drops will produce a brilliant reddish or yellowish opaque precipitate. Another test used is Trommer's test. I shall not enter into the different analytical processes by which the presence of sugar may be detected. Trousseau gives a very simple and he says it is a good

as any and so true. In putting a certain quantity of caustic potash in a glass tube containing the urine or same diluted in a bottle then and heating at the flame of a spirit lamp or candle. the liquid as soon as it begins to boil will assume a reddish brown color should it contain sugar but this will not be the case in respects of any other urine submitted to the same test of analysis. From what has been said in this disease in a large majority of cases we can not hold much encouragement as regards the probabilities of permanent recovery. Undoubtedly recoveries have taken

since is a cure but it is a question if it will not reappear. The age and condition of the patient have a bearing on the prognosis. But if we persist in the early treatment the disease may be held in check. The case that was treated in the Hospital last summer shows that we may help the vast majority of cases at the time if they will only follow the directions of the physician.

Treatment. We will only consider the treatment in persistent diabetes. Diet is of the utmost importance. Animal diet suits diabetic patients better than vegetable diet because the latter particularly when

It is evident wherein the source of [illegible] with the health of the skin and kidneys. But we should guard against adopting extreme views. As it is a disease in which disturbance of the nutritive function is unquestionably a leading part, it is of the utmost importance to avoid everything which might increase this disturbance. We must not give any food that would produce irritation. So we must vary the diet along with a meat diet we may give all varieties of shell-fish, fish of various kinds and some of the vegetables such as string-beans [illegible] cabbage &c &c. and give

[illegible]uits, give gluten bread instead [illegible]
the list. In fact the bill of fare
is so extensive for diabetic patients
that I can not mention the whole
list but we must be careful
and if we persist in a good diet
treatment we will lessen the sugar
in the urine. As for drugs a variety
has been used and some with
good effect. The alkaline treatment
has been employed for a long time.
Trousseau's method was to give a
drachm daily of the bicarbonate of soda
and to increase the medicine to two
or four drachms. The Opium treatment
has its advocates and some [illegible]
[illegible] this remedy and it is certainly

a good medicine for if the patient is restless and suffering any pain the Opium acts as an anodyne. Just how this medicine acts on this disease I am not prepared to say. One thing is sure that there may be indications for medicines without reference to any curative effect. Tonics may be indicated. Give Iron for anaemia. Bromides & other sedatives for the nervous system. An important part of the treatment is the hygienic condition of the patient. Ergot has been recommended for Diabetes mellitus but this medicine did not act kindly on the patient in the ward.

End